THE LANCET.

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LECTURES
ON THE
THEORY AND PRACTICE OF MEDICINE;

NOW IN COURSE OF DELIVERY AT THE THEATRE OF ANATOMY AND MEDICINE, WEBB-STREET, SOUTHWARK.

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THE EFFECTS OF LOSS OF BLOOD:—*They have been often confounded with inflammatory affections. Their distinction into remote and immediate effects. Organic changes produced during the state of sinking. The immediate effects of loss of blood; illustrations drawn from venesection, puerperal hæmorrhage, &c. The reaction which succeeds profuse loss of blood; examples drawn from practice. Syncope and coma. Exhaustion followed by excessive reaction; its distinctive characters. Reaction arising from a continued drain of blood. Effects of long-continued epistaxis. Consequences of free bloodletting in certain cases of threatened apoplexy.*

GENTLEMEN:—I must now beg your attention to another subject equally important and practical with intestinal irritation, and, I trust I may add, equally indebted to my own investigations.

The question of the morbid effects of loss of blood appears to me not to have sufficiently engaged the attention either of the physiologist or of the practical physician, yet to both they offer objects of inquiry of great interest and importance.

To the physiologist the phenomena of syncope, of reaction, and of sinking, present innumerable objects for his consideration, of the very deepest interest. The influence of syncope on the functions of the brain, of the heart, of the capillary vessels, of the lungs, of the stomach, &c.; the phenomena of reaction, excessive or defective, but especially the phenomena and influence of the sinking state, or state of failure and decline of the vital powers, in their relation both to the nervous, the circulating, and the organic systems, severally present objects for our investigation, in a physiological point of view, at once of much novelty and of the highest utility.

To the physician the symptoms of reaction, so similar to those of some inflammatory affections of the head and of the heart, and the phenomena of the sinking state, so similar to those of some other affections of the head, and to those of some morbid affections within the chest and abdomen, present subjects for his observation of the utmost moment in actual practice. The diagnosis of these cases is most important; the prognosis and the treatment alike depend upon it.

The morbid effects of loss of blood may be divided into the immediate and into the more remote. Besides syncope, from its slightest to its fatal form, the former include delirium, convulsions, and coma. The latter comprise the states of excessive reaction, of defective reaction, of the gradual failure of the vital powers, and of more rapid or sudden sinking or dissolution. The former, the different forms of syncope at least, are comparatively well known. The latter appear to me not to have received the degree of attention due to them. No author has described with accuracy the secondary or more remote effects of loss of blood, under the various circumstances of repetition, or continued flow, in which it may occur. And yet when we reflect how constantly bloodletting is employed as a remedy, and how frequently hæmorrhage occurs as a disease, it must evidently be of great moment to trace the symptoms and effects of a diminished quantity of blood upon the different functions of the human body.

This inquiry possesses a still higher interest in a practical point of view, for, as I shall immediately explain, some of the more obvious and striking effects of loss of blood, or those of reaction, are such as to suggest the idea of increased power and energy of the system, and of increased action in some of its organs, and to lead to an erroneous and dangerous employment or repetition of the lancet when a directly opposite

mode of treatment is required; while the state of actual but protracted sinking frequently resembles a state of oppression of the brain, or of congestion of the lungs, so accurately as to prompt the unwary practitioner to a still more suddenly fatal use of the lancet.

There is another point of view in which the effects of loss of blood become interesting in the practice of physic. I have already stated that the symptoms of reaction from loss of blood accurately resemble those of power in the system, and of morbidly increased action of the encephalon, and that from these causes the case is very apt to be mistaken, and mistreated by the further abstraction of blood. The result of this treatment is in itself again apt further to mislead us, for all the previous symptoms are promptly and completely relieved; and this relief, in its turn, again suggests the renewed use of the lancet. In this manner the last bloodletting may prove suddenly and unexpectedly fatal.

The next point for our consideration is the influence of the age, the strength, and the varied constitution of the patient, in modifying the effects of loss of blood. On these greatly depends the tendency to defective or to excessive reaction, and to the state of sinking. So that the effects do not correspond with the measure, or even a comparative measure, of loss of blood in different subjects. Sometimes there is no reaction. At other times the reaction is excessive, and even violent. In a third instance, we may be surprised by the sudden accession of a sinking state, or even of the symptoms of immediate dissolution. I think the whole of these varied and even opposite phenomena admit of a ready explanation. In general it may be said that reaction is principally observed in connection with strength of system; in infancy and in old age reaction is slight; exhaustion from loss of blood is then most apt to show itself in the form of failure or sinking of the vital powers.

But a question still more interesting even than this, is that of the influence of different diseases in inducing in the system resistance or susceptibility in regard to the effects of loss of blood. The discussion of this subject, and its application to practice, are reserved for another occasion.

The next point for our consideration in the inquiry into the morbid effects of loss of blood, is that of the organic changes induced during the state of sinking. These are chiefly observed in the brain, in the cavities of the serous membranes, in the bronchia, in the lungs, and in the track of the alimentary canal, under the forms of effusion, œdema, and tympanitis.

We must consider, in the last place, the proper mode of treating the effects of loss of blood, both constitutional and local. This discussion will involve many very interesting questions.

The effects of loss of blood then require to be traced successively in their relation both to the central and to the ultimate parts both of the nervous and vascular systems. They involve questions of the deepest interest in regard to physiology, pathology, and treatment.

I. Of the Immediate Effects of Loss of Blood.

1. *Of Syncope.*—The most familiar of the effects of loss of blood is syncope. The influence of posture, and the first sensations and appearances of the patient, in this state, appear to denote that the brain is the organ, the function of which is first impaired; the respiration suffers as an immediate consequence; and the action of the heart becomes enfeebled, as an effect of the defect of stimulus, first from a deficient quantity of blood, and, secondly, from its deficient arterialisation; the capillary circulation also suffers; and if the state of syncope be long-continued, the stomach becomes affected with sickness, and the bowels are evacuated.

In ordinary syncope from loss of blood the patient first experiences a degree of vertigo, to which loss of consciousness succeeds; the respiration is affected in proportion to the degree of insensibility, being suspended until the painful sensation produced rouses the patient to draw deep and repeated sighs, and then suspended as before; the beat of the heart and of the pulse is slow and weak; the face and general surface become pale, cool, and bedewed with perspiration; the stomach is apt to be affected with eructation or sickness. On recovery there is perhaps a momentary delirium, yawning, and a return of consciousness; irregular sighing breathing; and a gradual return of the pulse.

In cases of profuse hæmorrhage the state of the patient varies: there is at one moment a greater or less degree of syncope, then a degree of recovery. During the syncope the countenance is extremely pallid, there is more or less insensibility, the respiratory movements of the thorax are at one period imperceptible, and then there are irregular sighs; the pulse is slow, feeble, or not to be distinguished, the extremities are apt to be cold, and the stomach is frequently affected with sickness. There are several phenomena observed in this state particularly worthy of attention. I have remarked that when the movements of the chest have been imperceptible, or nearly so, in the interval between the sighs, the respiration has still been carried on by means of the diaphragm. It may also be observed, that the state of syncope is often relieved, for a time, by an attack of sickness and vomiting, immediately after which the patient expresses herself as feeling better,

and the countenance is somewhat improved, the breathing more natural, and the pulse stronger and more frequent. It may be a question in this case, whether the state of syncope increases until it induces sickness; or whether the stomach be nauseated by the ingesta usually administered, and the syncope be, in part, an effect of this state of the stomach. In any case the efforts to vomit are succeeded, for a time, by an ameliorated state of the patient.

In cases of fatal hæmorrhage there are no ameliorations. The symptoms gradually and progressively assume a more and more frightful aspect: the countenance does not improve, but becomes more and more pale and sunk; the consciousness sometimes remains, until, at last, there is some delirium; but everything denotes an impaired state of the energies of the brain; the breathing becomes stertorous, and, at length, affected by terrible gasping; there may be no efforts to vomit; the pulse is extremely feeble, or even imperceptible; the animal heat fails, and the extremities become colder and colder in spite of every kind of external warmth; the voice may be strong, and there are constant restlessness and jacitation; at length the strength fails, and the patient sinks, gasps, and expires.

From the state of syncope the system usually recovers itself spontaneously, if the cause by which the syncope was induced be discontinued. The principle by means of which this recovery is effected, may, without involving any hypothesis, be denominated *reaction*.

This reaction of the system may, under different circumstances, be excessive or defective, or it may be destroyed altogether, and yield to an opposite condition of the vital powers, or *sinking*,—or to dissolution,—each state leading to a corresponding series of phenomena.

2. *Of Convulsion.*—Convulsion is, after syncope, the most familiar of the immediate effects of loss of blood. It is most apt to occur in children, and in cases of slow and excessive detraction of blood.

Convulsion obviously arises from an affection of the brain. It is that phenomenon which denotes most distinctly that the brain may be similarly affected in opposite states of the general system; an observation as old as Hippocrates. This remark applies not only to convulsive movements of the voluntary muscles, but to those of the respiratory system. In this manner, indeed, I believe an affection resembling croup is sometimes induced, which is very apt to be mistaken and mistreated for croup itself.

The general principle of the affection of the brain, from a state of inanition or exhaustion of the vascular system, is one to which I shall have occasion repeatedly to advert. It is also one of the utmost interest in physiology, and of the utmost moment in practice. In the case of convulsion, as an immediate effect of loss of blood, their connection and relation are obvious; but, in some other instances, it requires much attention to trace them. In every case of convulsion the local treatment must be similar in principle though very different in degree; whilst the constitutional treatment, of course, be of a directly opposite kind, in the two cases of repletion and of exhaustion of the general system.

Convulsion occurring from bloodletting, must, I think, be generally considered as denoting that the remedy has been used beyond the safe degree. It is most apt to occur in cases in which the patient has been freely bled in a more or less recumbent position, in which the blood has flowed slowly, or in which time has been lost during the operation. In such cases much blood usually flows before syncope is observed—too much to be safe; in such circumstances we should, therefore, be very cautious how we bleed to deliquium. The following case, given to me by a friend, was one in which, for a short time, some alarm was felt lest the patient might not rally at all.

A physician, aged thirty-four, became affected with inflammation of the larynx. He was bled freely on two successive mornings at his own instance. In the afternoon of the second day, the disease being unsubdued, he was bled a third time, placed in a rather inclined position upon a sofa. The blood was allowed to flow until thirty-four ounces were taken. He then suddenly fell upon the floor violently convulsed; and he remained for some time afterwards in such a state of syncope as to render his recovery very doubtful; being carried to bed, however, and, cordials being administered, he slowly recovered. He did not afterwards suffer from the secondary effects of loss of blood.

A similar case is given by Mr. Travers. This gentleman observes:—"Some patients cannot bear the loss of blood; it gives rise to prostration, attended with convulsions, in which the circulation fails so alarmingly as to require watching for several hours, and the repeated administration of stimulants to restore it. A very intelligent surgeon, in the neighbourhood of London, in bleeding a clergyman to the extent of twenty ounces, whose idiosyncracy, in this respect, was not known, was compelled to remain with him during the whole of that day; and, notwithstanding frequent recourse to brandy, continued long apprehensive for the patient's life. He represented the convulsions, which returned in paroxysms, as resembling the puerperal in their severest form. There has been reason to believe that the loss of blood in operations in which hæmorrhage was unavoidable, has sometime induced this state; this, however, in the present advanced state of surgery, is rare.

The same author observes:—"The unavoidable effusion of blood in operations, though insufficient to create alarm for the patient's safety, on that score, obviously predisposes to the convulsions which sometimes prove fatal, especially to children. I have known an infant die of convulsions on the day after the removal of a nævus from the scalp of no extraordinary size, and without any after-hæmorrhage.

Convulsion from loss of blood constitutes one species of puerperal convulsion, and should be accurately distinguished from other forms of this affection, arising from intestinal or uterine irritation, and an immediate disease of the head.

It is well known that infancy is extremely prone to convulsions from various causes. This is particularly observed in relation to loss of blood.

In Dr. Kellie's interesting experiments upon dogs and sheep, convulsions were found to be a frequent consequence of the vascular exhaustion. I have proved the effect to be dependant on the *spinal marrow*, and not, as formerly supposed, on the *brain*.

3. *Of Delirium.*—Delirium occurs as an immediate, as mania occurs as a more remote, effect of loss of blood.

A young man, aged thirty, had lost much blood from the arm, and by leeches, and under the influence of a brisk purgative, fell into complete syncope; instead of laying him recumbent, his ignorant friends kept him in the erect position during an hour and a half, and thus protracted the state of deliquium during the whole of this period. He was found perfectly colourless and senseless, and affected with rattling in the breathing. Being laid down, he made a convulsive effort to expectorate, and the blood rushed into his cheeks; in half an hour he began to recover, opened his eyes, and complained of deafness; the pulse was frequent. The rattling gradually subsided, and he regained a degree of warmth under the influence of brandy and fomentations.

To these phenomena succeeded severe rigor, followed by great heat of skin, constant delirium, with continued, though diminished, deafness. The delirium did not cease during the night. On the following morning it was only occasional, and the deafness slight.

This state was followed by numbness of the feet and legs, and a great fear of choaking on going to sleep.

The patient gradually recovered.

Another patient fell and hurt his back. On three successive days he was freely bled from the arm and by cupping, and purged. On the evening of the third day he was again bled. This was followed by faintness, sickness, and retching, and much affection of the head.

I saw this patient very early on the following morning. There were great pallor, tinnitus aurium, with extreme intolerance of noises, and of the light, and sighing breathing. To these symptoms succeeded great hurry and alarm of mind, with extraordinary noises and visions, delirium, weeping, and sighing. At length continued delirium supervened, and finally wore out the patient. He died, in fact, a maniac.

The following case is remarkable as combining convulsion with delirium:—

Mrs. ——— miscarried on the third month of her pregnancy. There was considerable flooding. On unthinkingly getting out of bed for some purpose, there was a sudden profuse gush of blood. She turned pale and nearly fainted. She was promptly carried and laid upon the bed, but soon became affected with convulsion. This was succeeded by delirium, which continued during two hours. A little brandy and water was given. She recovered in a few days.

As might have been anticipated, delirium frequently occurs as an immediate effect of hæmorrhage during parturition. Still more frequently mania occurs as a remote effect of loss of blood.

It is important to remark, that delirium may occur even from the loss of a very small quantity of blood, in those cases in which there is what I have ventured to term intolerance of loss of blood, or, in other words, great susceptibility to its effects, a subject which will be fully discussed hereafter.

Mrs. ———, aged 40, had been, for some time, under medical treatment for a small tumour in the mamma. She was seized with rubeola; on the first and second days of the rash she was purged freely, too freely; on the third she was bled to eight ounces, and six leeches were applied to the chest, for a slight oppression felt there. Mrs. ——— had also passed five nights totally without sleep, although on the evening of the second day she had taken twenty-five minims of the tinctura opii.

Under the influence of these circumstances, Mrs. ——— was seized with delirium. I saw her on the fourth day; there were constant delirium, a profuse perspiration, a trifling rash, and a feeble pulse of 120. I gave fifty drops of tinctura opii, and one drachm of the spiritus ammoniæ aromaticus.

I saw Mrs. ——— again in four hours; the delirium had subsided into a state of obstinate silence, the patient sitting up in bed, refusing to answer questions, and having had no sleep; the skin and pulse as before. I directed one ounce of brandy to be given every hour, with beef tea.

The first dose of brandy had produced sleep. It was directed to be continued every hour, at my visit in the morning.

On the morning of the second day I was informed that eight ounces of brandy had been taken during the night, and that there

had been much quiet sleep. I found the patient collected, the pulse 108, and less feeble; the skin still in a state of perspiration. The brandy was directed to be given every second hour. In the evening there was still further amendment. The bowels not having been moved, an aperient draught was prescribed to be taken early in the morning.

This draught acted thrice; the delirium returned, and was removed by the brandy, which again procured sleep.

From this time there was no recurrence of delirium; the perspiration kept profuse for some days, but gradually subsided; the pulse became gradually slower and stronger; there was afterwards a protracted affection of the chest.

Puerperal mania from hæmorrhage is rather to be ranked amongst the secondary effects of loss of blood, and will be discussed in its proper place.

4. *Of Coma.*—We may be called to patients so perfectly comatose, immediately after bloodletting, or hæmorrhage, that we may be in doubt for a time whether the case be not apoplexy. The history, the state of the countenance, of the pulse, and of the extremities, and the other symptoms will, after a little watching, make the case clear to us.

I do not find that I have preserved the notes of any case of this kind in adults; but I have known such a morbid state occurring in infants and children.

Mr. C. Bell observes,—"When a man who has cut his throat is brought into the hospital, he is in a state very much resembling that which some authors have described as accompanying severe wounds. Though sensible he is cold, pale, taciturn, and very often, although such men are desirous of living, they sink within twenty-four hours; this appears at first to proceed from a strong impression on the mind; that is, I believe, the consequence of loss of blood, and the shock thus given to their powers of life."

5. *Of Sudden Dissolution.*—I have pointed out some circumstances in which bloodletting has led to sudden dissolution, and I have recorded in a recent work several instances of this kind; to these I must refer you. The subject will be again mentioned in the course of these lectures, in which the cases in which this sad event is most apt to occur, will be accurately pointed out.

II. Of the more Remote Effects of Loss of Blood, or Exhaustion.

1. *Of Exhaustion with excessive Reaction.*—Exhaustion may assume several different characters; it may be attended with excessive or defective reaction, or with actual sinking of the vital powers; its most prominent symptom may be delirium, or coma. With each of these it is very important that the physician should be accurately acquainted. I proceed to describe that form of exhaustion which is attended with excessive reaction.

The reaction, or recovery, from ordinary syncope, is generally a simple return to a healthy state of the functions, or nearly so, the pulse not passing beyond its natural frequency. In cases of profuse loss of blood, on the contrary, the recovery is not quite so uniform, and the pulse acquires and retains a morbid frequency for a certain length of time; this frequency of the pulse may gradually subside, however, and be unattended by any other symptom of indisposition of any consequence.

The phenomena are very different if, instead of one full bleeding to syncope, or of a profuse hæmorrhage, and even protracted syncope, the person be subjected to repeated bloodlettings, or to a continued drain. In this case, within certain limits, the pulse, instead of being slow and feeble, acquires a morbid frequency and a throbbing beat, and there are, in some instances, all the symptoms of excessive reaction.

This state of excessive reaction is formed gradually, and consists, at first, in forcible beating of the pulse, of the carotids, and of the heart, accompanied by a sense of throbbing in the head, of palpitation of the heart, and eventually, perhaps, of beating or throbbing in the scrobiculus cordis, and in the course of the aorta. This state of reaction is augmented occasionally by a turbulent dream, mental agitation, or bodily exertion. At other times it is modified by a temporary faintness, or syncope; there is also, sometimes, irregularity of the beat of the heart and of the pulse.

In the more exquisite cases of excessive reaction the symptoms are still more strongly marked, and demand a fuller description. The beating of the temples is at length accompanied by a throbbing pain of the head, and the energies and sensibilities of the brain are morbidly augmented; sometimes there is intolerance of light, but still more frequently intolerance of noise and of disturbance of any kind, requiring stillness to be strictly enjoined, the knockers to be tied, and straw to be strewed along the pavement; the sleep is agitated and disturbed by fearful dreams, and the patient is liable to awake or to be awoke in a state of great hurry of mind, sometimes almost approaching to delirium; sometimes there is slight delirium, and occasionally even continued delirium; more frequently there are great noises in the head, as of singing, of crackers, of a storm, or of a cataract; in some instances there are flashes of light; sometimes there is a sense of great pressure, or tightness, in one part, or round the head, as if the skull were pressed by an iron nail, or bound by an iron hoop.

The action of the heart and arteries is morbidly increased, and there are great pal-

pitation, and visible throbbings of the carotids, and sometimes even of the abdominal aorta, augmented to a still greater degree, by every cause of hurry of mind or exertion of the body, by sudden noises, or hurried dreams or wakings; the patient is often greatly alarmed and impressed with the feeling of approaching dissolution; the state of palpitation and throbbing are apt to be changed, at different times, to a feeling of syncope; the effect of sleep is, in some instances, very extraordinary, sometimes palpitation, at other times a degree of syncope, or an overwhelming feeling of dissolution; the pulse varies from 100 to 120 or 130, and is attended with a forcible jerk, or bounding of the artery.

The respiration is apt to be frequent and hurried, and attended with alternate panting and sighing; the movement of expiration is sometimes obviously and singularly blended with a movement communicated by the beat of the heart; the patient requires the smelling-bottle, the fan, and the fresh air. The skin is sometimes hot, and there are frequently general hurry and restlessness.

In this state of exhaustion, sudden dissolution has sometimes been the immediate consequence of muscular effort on the part of the patient, or of his being too suddenly raised from the recumbent into the erect position.

The following case strikingly illustrates the phenomena of reaction from a continued drain, or loss of blood:—

Mrs. ———, aged 28, of a stout constitution. After delivery there was uterine hæmorrhage, which continued to recur for the twelve subsequent months. It was then discovered that Mrs. ——— laboured under polypus uteri; a ligature was applied, purgative medicines given, and the patient recovered. The effects of this loss of blood followed, however, and there were,—1. beating of the temples, a sense of violent "knocking" in the head, pain, vertigo, dimness of sight, and singing in the ears, terrific dreams, and starting from sleep; 2. frequency of the pulse, pulsation of the carotids and aorta, fluttering and beating of the heart, faintishness, and a sense and fear of dissolution: the palpitation of the heart was sometimes such, on awaking, as even to move the bed-clothes, the bed, and, it is said, even the door; 3. the breathing was short and hurried, sometimes with panting, sometimes with sighing; 4. there were urgent calls for air, for opened windows, and the smelling bottle, and the nostrils and temples were required to be bathed with sal volatile or vinegar. The countenance, prolabia, and tongue were pallid; the legs somewhat œdematous; the bowels were irregular, the secretions morbid; once there was obstinate constipation; frequently the bowels were merely confined, sometimes with sickness, but always with an increase of all the symptoms.

The state of reaction, as an effect of repeated loss of blood, is interestingly pourtrayed in the following case, for which I am indebted to a friend:—

"Mrs. ———, a delicate married person, aged 24, a week or ten days after her confinement of a still-born child, was seized with pain at the lower part of the abdomen, extending to the liver, and other symptoms which indicated inflammation of the os uteri, together with much constitutional disturbance. The case seems to have been mistaken in the beginning, so that it was allowed to become somewhat inveterate before the appropriate treatment was adopted. It was at this stage treated with leeches to the hypogastrium, cupping low in the loins, the hip-bath, aperient medicines, strict abstinence, &c.

"The benefit accruing from cupping over the sacrum was observed to be so decided, that recourse was had to this remedy twice or thrice a week regularly. The disease seemed to be thus yielding in the most favourable manner, when the patient became suddenly, and quite unexpectedly, affected with the effects of loss of blood, in a most violent form. The quantity of blood taken by the cupping had frequently been twenty ounces, and too exclusive attention had been paid to the disease, the state of the constitution not being sufficiently watched. In this manner the patient became affected, all at once, after being cupped, with sudden and alarming syncope; she gasped, and became convulsed, and afterwards slightly delirious. The admission of the cold air, and the administration of brandy, gradually restored the patient to sensibility, but she remained extremely feeble.

"On the next morning Mrs. ——— was affected with extreme pain of the head, violent throbbing of the temples, slight delirium, and sickness; the street was found covered with straw. During this day the pain of the head, the throbbing, and the intolerance of light and of sound, had increased so much, with sickness, feverishness, and a frequent strong pulse, that it was apprehended that inflammation had taken place in the brain. The arm was actually tied up for blood-letting; but the remonstrances of the patient, the history of the attack, and the recollection of some remarks on the effects of loss of blood, read some years before, happily led to the abandonment of this measure."

My friend candidly observes,—"Fortunately both for my patient and for myself, her repugnance to general bleeding prevented me from using the lancet, and so saved her life. I prescribed leeches to the temples, a blister to the nape of the neck, and a cold lotion to the head; opiates and the effervescing medicines were immediately

rejected. My patient became much better. She earnestly requested to be allowed a little brandy; I gave it her; it obviously afforded much relief, and I began clearly to see the nature of the case." From this time light cordials, a mild diet, rest, quietude, a strict attention to the state of the bowels, constituted the treatment, and it was followed by a gradual and progressive amendment.

Some of the symptoms remained, however, for some time. The pain of the head continued very troublesome for many weeks, and a pulsatory movement in the side of the neck harassed the patient for several years. My friend adds,—"In this case the effects of loss of blood on the constitution stole almost imperceptibly on me, and I was not then aware that such symptoms as you have detailed in your work would arise. This case also has made me attend very much to the prejudices of a patient ever since, and carefully examine whether they be well-founded. In this instance I really believe my yielding to them saved the life of my patient."

Since my first publication on this subject, in 1820, I have seen several allusions to it in various works, and one especially by Mr. Cooke, in his useful and able abridgment of Morgagni. The observations of this author are indeed highly valuable, and they have been fully confirmed by Dr. Kellie. Mr. Cooke remarks,—"After uterine hæmorrhage, and also after copious depletion on account of pulmonary and other inflammations, I have frequently observed the symptoms of cerebral congestion; and which has generally appeared to arise from the excitement occasioned by some mental effort, though occasionally it has arisen without an evident cause. Whilst the other parts of the body appear comparatively bloodless, the vessels of the head throb violently; there is severe pain; confusion of intellect, sometimes to such a degree as to threaten delirium; the pulse at the wrist is usually small and vibrating, and the countenance distressed. When I first observed these symptoms I was led to abstract blood, from an apprehension of phrenitis; but I did harm, for if the urgency of symptoms was diminished, the susceptibility to a recurrence was increased, and restoration to health was protracted. The liability to this form of cerebral plethora has appeared to me to be proportionate to the preceding hæmorrhage, and the consequent debility. If in this condition an intrusive visitor be admitted to converse, though but for a short time, with the patient; or if the patient attempt to read, or in any other way to employ the mental faculties beyond what is perfectly easy; or if the mind be agitated, this state of the head will almost inevitably be induced. It may, however, be brought on by all those causes which tend to destroy the equilibrium of circulation; and none are more likely, in this condition of the patient, than noise in the room, deficiency of sleep, improper food, a constipated state of the bowels, or a morbid state of the secretions into them. This susceptibility to local congestion, after excessive loss of blood, I presume depends upon the want of that due balance which, in a state of health, subsists between the nervous and vascular systems; but I am jealous of hypothesis in medicine, and to pursue them in the present work would be unwarrantable."—Vol. i. p. 73.

"From the peculiarity of the conformation of the nose, epistaxis is sometimes a most uncontrollable form of hæmorrhage. I have recently seen two cases in which, if it were not absolutely the occasion of death, it certainly accelerated that event. The first was in a gentleman who laboured under hydrocephalus; he was a susceptible man, and would not endure a plug in the nostril. The hæmorrhage frequently recurred; and when he had become excessively pallid from loss of blood, it was curious to observe to what an extent the irritative hæmorrhagic action was propagated. At first he only distinguished pulsation in and about the nose, but as his strength decreased, and his anxiety and susceptibility were heightened, the carotids could be seen throbbing vehemently, and a corresponding action was perceptible to the patient through their ramifications. The second case was in an old arthritic sufferer, who had been seized with cynanche parotidæa. The more acute inflammation had subsided, but the gland was much enlarged and indurated, and the jaw nearly rigid. In this state he was attacked with bleeding from the nose. It occurred sometimes when he was asleep, on which occasions he was threatened with suffocation from the formation of coagula in the fauces, which he removed with the utmost difficulty, in consequence of being unable to open his mouth. The hæmorrhage commenced in the nasal cavity nearest to the enlarged gland, but it afterwards took place from both nostrils. He was excessively afflicted with gout, and had indications of hepatic disorganization; but the immediate cause of death was the repeated effusion of blood. The hæmorrhagic action was not so extensively manifest as in the preceding case; but when there was feebleness in the radial artery, and the extremities were cold, the patient was conscious of a strongly irritative throbbing in the arteries ramifying through the nose and the circumjacent parts." Vol. i. p. 191.

More recently I find several interesting cases of this kind in the late admirable work of Dr. Abercrombie.

"A gentleman, aged about 40, had been for some time losing considerable quantities of blood by arterial hæmorrhage from the rectum. Considering it as merely hæmor-

rhoidal, he had paid little attention to it until his friends became alarmed by his altered appearance. From being strong and rather plethoric, he had become weak, exhausted, pale, and haggard. He had anasarca of his legs; his pulse was frequent and feeble, and much excited by the least exertion. Along with these symptoms, he was liable to strong and irregular action of the heart, and complained of giddiness, tinnitus aurium, violent throbbing in the head, and frequently of throbbing headach. On examining his rectum, a fungous tumour was found within the sphincter, on the apex of which a small artery was bleeding, per saltum. This was tied, and there was no return of the hæmorrhage; and under the use of nourishing diet, and a liberal allowance of wine, all his other complaints disappeared. He made up so rapidly in flesh and blood, that not long after apprehensions were entertained that he was becoming too plethoric, and it became necessary to reduce his regimen, but under these circumstances he had no return of the symptoms in the head.

"A lady, aged 25, had been frequently bled on account of symptoms in the head which had supervened upon an injury. Considerable relief had followed each bleeding; but the symptoms had soon returned so as to lead to a repetition of the bleeding at short intervals, and this had been going on for several months. When I saw her she was stretched upon a couch, her face of the most death-like paleness, or rather of the paleness of a stucco figure, her pulse very rapid and as small as a thread, her general weakness extreme. The mass of blood appeared to be reduced to the lowest point that was compatible with life, but she still complained of frequent headach, violent throbbing in the head, confusion, and giddiness. It was evident that evacuation could be carried no further, and in consultation with a very intelligent medical man who had the charge of her, it was agreed, as a last experiment, to make trial of the opposite system, nourishing diet and tonics. In a fortnight she was restored to very tolerable health.

"I have been repeatedly consulted under the following circumstances:—A gentleman, accustomed to very full living, is seized with an apoplectic attack, or with symptoms indicating the most urgent danger of apoplexy; he is saved by bleeding and other free evacuations, and is kept for some time upon a very spare diet. His complaints are relieved, and as long as he keeps quietly at home, he goes on without any uneasy feeling; but when he begins to go about, he becomes liable to attacks of giddiness and confusion, generally accompanied by palpitation of the heart and an uneasy feeling about the præcordia. His pulse is now soft and rather weak, and his general appearance indicates the reverse of plethora, and these symptoms are removed by a cautious improvement of his regimen. This curious fact I have repeatedly had occasion to attend to in the treatment of cases of this kind, and it has always appeared to me to be of very great interest in reference to the pathology of the brain."

LECTURES
ON
MATERIA MEDICA AND THERAPEUTICS;
NOW IN COURSE OF DELIVERY
AT THE
WINDMILL-STREET SCHOOL OF MEDICINE.
BY
GEORGE G. SIGMOND, M.D.

CINCHONA:—*Distinguishing characters of the genus; its various species; locality of growth. The varieties of bark found in commerce. Effects of cinchona in fevers, in hypochondria, &c. Enlargement of the spleen in intermittent fevers. Cinchona efficacious in most periodic affections. Precautions to be used in the employment of cinchona. The treatment of intermittents by bleeding. Tinctures of cinchona. Infusion of the bark. Sydenham's electuary.*

GENTLEMEN:—The genus cinchona is marked by certain distinguishing characters, which have undergone much botanical examination. It is formed of several species, all of which are trees with round branches, excepting at the top, where they are obscurely four cornered; the flowering branches are alternately compressed, with simple entire opposite leaves; the inflorescence is varied, but, in general, paniculate. The calyx is adherent to the germen, one-leafed, five-toothed, and permanent; the corolla is sympetalous, funnel-shaped, five-cleft; there are five stamina, the filaments are in the middle of the tube; the anthers are two-celled, and dehiscent longitudinally by valves; the germen is inferior, formed of two or four connate carpels; the style is of the length of the stamina; the stigma thick, bifid, or entire. The fruit is capsular, braceate, or drupaceous, two-celled, sometimes with more cells; the valves parallel to the partitions, opening inwardly. The seeds are many, oblong, compressed; the albumen is large, fleshy, or horny; the embryo small, the radicle is turned towards the hilum, the cotyledons thin and foliaceous.

The modern genus cinchona is limited to about sixteen species; some, which were formerly included, are found very different

in structure, and also in their properties. Amongst these are the different species of the exostema, the cosmibuena, &c.; these various families belong to a very extensive natural order, the rubiaceæ, which possess families of great diversity of form and structure, as well as others which do not offer such striking marks by which they may be distinguished one from the other. In the last volume of the "Linnæan Transactions," is a paper, very short, but most valuable, which has thrown a new light upon the subject, and has furnished us with a key, whose application has unlocked an unexpected store, from which a guide through our difficulties is obtained.

Mr. Don has taken the variations of the æstivation, or the manner in which the floral envelopes are arranged before they expand, as the character by which the different groups may be distinguished; and as these variations of æstivation are found connected with other differences in structure, it affords a very valuable distinction. He has observed that, in the true cinchonas, of which he gives seventeen species, the æstivation is valvate.

Cinchona Lanceolata	Dehiscentia Basilari Normali.
Condaminea	
Cordifolia	
Rotundifolia	
Ovalifolia	
Purpurea	
Pubescens	
Micrantha	
Humboldtiana	
Glandulifera	
Hirsuta	
Stenocarpa	
Caduciflora	
Macrocarpa	Dehiscentia Terminali Sp. Aberrantes
Oblongifolia	
Magnifolia	
Pavonii	
Acutifolia	

That we cannot, look to the variation of the shape of the leaf, which must be affected by altitude, by age, by climate, by the situation of the tree, whether surrounded by others or standing alone, by many circumstances attending its development, I think must be admitted. Another source of information has been sought, and some expectations raised, which, I fear, cannot be borne out, namely, that by the lichens, or mosses, we can distinguish the tree. They have been studied with a praiseworthy ardour by botanists. Fèe, more particularly, has devoted great attention to this subject; in his memoir on the cryptogamic epiphytes of the officinal bark, he has made some singular observations. He states that the gassicurtia is found, exclusively, on the yellow bark; that the graphis interrupta is found only on the bark of the lancifolia; these are the lichens which you find upon the specimens before you; and, after very careful examination of a vast variety of the different specimens of barks imported into this country, they are the only ones which I have been enabled clearly to distinguish. The ascidium cinchonarum, which is said to be found indiscriminately on them all, I have not observed, at least, taking the engraving given by our late professor, Gilbert Burnett, as my guide. Upon the red bark I have never observed the slightest appearance of adhering lichen; but this study is pursued under great disadvantages, from the want of a sufficient number of engravings to consult.

I do not think that enough of facts have yet been accumulated to enable us to judge of the value of the lichens, as a diagnostic mark of the species, but certainly their presence or absence may be considered as most useful indicators of the state of the bark. We know that the several species of the family rhizomorpha, are very active agents in decorticating dead trees; and, as has been observed, "they assist in the disintegration of lifeless organic bodies, which would otherwise encumber the surface of the earth, and be exceeding tedious in their removal."

Thus the rhizomorpha cinchonarum is a rare species, but whenever it exists upon the epidermis, it indicates that the bark is in a state of decay, and that it has lost its febrifuge power. Fèe states, that the presence of himantia cinchonarum is a certain proof that putrefaction has very far advanced. The hypochnis rubro-cinctus and nigro-cinctus rarely grow in great quantities on healthy trees; and the opegrapha rizicola, and fissurina, likewise may be considered as indicators of the advanced age and impoverished state of the tree on which they are found.

The locality of the growth of the quinquina, or as it is called by the natives, kin kina, the bark of barks, is very confined. It grows most abundantly on a chain of mountains extending to the north and south of Loxa; the trunks are larger than the size of a man's body; they are said to grow most luxuriantly on a red clayey soil, near to streams. During the months of September and October, when the rains intermit, the peelers build their huts, and a large place of receptacle for the bark, as near as possible to the spot where the trees abound. Each individual carries with him a large knife, and a bag which will contain about fifty pounds of the green bark. They strip the tree to the very top, and, as they carry no ladder with them, they follow a rude process, by which one person ascends the tree, whilst another collects the bark. Great precautions are necessary to prevent the loss of colour, which is the case if the bark be cut whilst it is wet; it rots, too, very quickly, if it remains very long in the hut prepared for its preservation. The

peelers, therefore, are anxious to remove it to the low lands, where it is spread in the open air, and frequently turned. Some travellers have affirmed that the trees thus stripped quickly die, and, at one period, a scarcity was apprehended; but De La Condamine asserts, that young trees do not perish by the loss they sustain, but that they send out fresh roots from the base.

The cinchona of Peru is certainly superior to that of all other parts of South America. It is imported into this country in chests. According to Humboldt, who denies that the Indians cure themselves of agues by it, and who is incredulous of the tradition of the relief said to have been derived by the Countess del Cinchon, it is considered, by the natives, in the class of poisons, exciting mortification, but it is a source of great wealth to them; about fourteen thousand quintals are annually exported.

The pale bark of our shops is preferred to all other sorts; it is in pieces five or six inches long, singly or doubly convoluted, of a greyish brown-colour; the yellow bark is less rolled, and the pieces are larger and thicker; the red bark is commonly in flat, thick pieces, covered with a coarse brown epidermis.

Bergen, to whose monograph I alluded, has enumerated eight kinds of bark found in commerce: 1. China rubra, the red bark, generally considered the cinchona oblongifolia; 2. China huanuco, silver huanuco; 3. China regia, yellow bark; 4. China flava dura, hard Carthagena bark; 5. China flava fibrosa, woody Carthagena bark; 6. China huamalias; 7. China Loxa, crown bark; 8. China jaen, ash-coloured bark; 9. China pseudo Loxa. Very great difference of opinion exists, as I have observed, as to the different trees from which these varieties are obtained, and we are almost as uncertain as we were a century ago. It is to be regretted that now that our commercial intercourse with Peru has given to us such an opportunity for a correct acquaintance with the points of interest, that no one has yet been sent by any learned body, to investigate the subject. The bark, in short thick pieces, rolled up in the form and size of a quill, has been long preferred; the analysis that has been made I shall shortly have to detail to you, by which we are now enabled to judge of the quality of the different varieties found in the market.

It is in the treatment of fever that Peruvian bark, or cinchona, has been most especially prized; in that particular type which is intermittent, it has with good reason been most decidedly hailed as a blessing to the sufferer, and in the greater number of cases, whether occurring solitary, or as epidemic, it has afforded such relief as to have deserved the character of a specific; where it has been known to fail, you will generally find that some circumstances have presented themselves, such as the inferiority of the drug imported, or some peculiarity in the nature of the incursion of the fever. A perfect knowledge of the state of the patient, due precautions previous to its administration are essentially requisite; but that which has most commonly led not only to a failure, but even to the production of considerable mischief, has been the ignorance of the stage in which it is certain to be successful. Yet remedies with which we are acquainted demand more judgment, and a proper knowledge of its actual value. One, indeed, of the distinguishing characteristics of the really great physician is, his proper management, and his intimate knowledge of all the circumstances that are attendant upon the treatment of the most ordinary deviation from a state of health.

Fever, in every form, whether it be merely ephemeral, or whether it be of a more decided nature, is constantly brought before the medical man, but he who has long had the experience which the very worst cases afford, must be best able to judge of the difficulties which are attendant upon its treatment. He who has in early youth sedulously watched the practice of hospital physicians, and has heard from them the mode of management which was formerly pursued; he who has compared what he himself saw at that period, with what he gathers from the most eminent writers, and has then enjoyed opportunities of drawing his conclusions from the bedside of patients, both in public establishments and at their own homes, will be able to appreciate the difficulties which occur in the application to practice of the rules that are laid down by some individuals with such dogmatic precision; he can also judge of the inutility of those theories which appear based upon plausible foundations, and which are often promulgated by individuals who hastily draw conclusions from few facts, and who commence explanations of their own views, ignorant of what has been thought, said, and practised by some of the able men who have preceded them; who are again reviving doctrines which time and experience have already demonstrated to be erroneous. The disregard of physiology and pathology has been one of the great fallacies of the age in which we live; the devotion to morbid anatomy, however praiseworthy is its investigation, has absorbed too much of the consideration of some of our most eminent medical philosophers. They have rather reasoned from the ravages which disease has committed, than from the signs and symptoms, and from the gradual development of the morbid functions of organs. Hence fever has been by some imagined to be a local disease, and hence the various theories have led not only to unsound, but in my opinion, in many instances, to danger-

ous practice. The treatment of some of the wisest men has been abandoned, and the slow and cautious investigator has been succeeded by a race of practitioners armed with the lancet, and with drugs of decided power, but uncertain modes of action.

Believing fever to be a disease of the whole system, during which the nervous, the circulating, the excreting, and the absorbing organs all participate, and act and react upon each other, I am the more induced to think that the views entertained by some of the more recent writers have arisen from partial considerations of the human structure, and have led medical men, at the bedside of the patient, to practice, which is less successful than that of former days; and the treatment in the various stages is by no means so distinctly defined in any of the most generally received practical works of the present day.

That cinchona is a medicine of the most active agency the results of its exhibition amply prove; it gives to the tissues of the organs additional tone and strength; their energy and intensity of action are increased. Even where a healthy state of the digestive organs exists, it imparts a higher power of action, it promotes the appetite, assists digestion and nutrition, giving a greater degree of regularity to the functions. All those that are periodically performed become, as it were, more certain and precise in the moment of their exertions; those who are not uniform in the excretion of the alvine or the urinary evacuation very generally become so during a well-regulated course of the bark; for there seems to be a peculiar power of producing a more healthy periodicity, as it has been called, of the actions of the living frame. It imparts its energy to the circulating system; this is demonstrated by the increased activity of the pulse, by the gradual elevation of the animal temperature, by the diffusion of cheerfulness, and by the increased elasticity of the mind.

Some of the narcotics which depress the spirits may be counteracted by this remedy, and the hypochondriac derives from its use a more permanent benefit than from the diffusible stimuli which are so often had recourse to. But should it have been taken in too large a quantity, or should the system be ill prepared for its reception, many bad sequelæ are speedily evinced. Severe cephalalgia, accompanied with noise and singing in the ear, throbbings of the carotid and temporal arteries, flushed face, are induced, and if these warnings do not arrest attention, other symptoms of a still more decided character speedily present themselves. Hæmorrhage from the nose, great turgescence of the face, disturbed sleep, during which giddiness, or a sensation, as of falling from a precipice, or, in some instances, a singular feeling of flying through the air, with lightness of the head and chest, are complained of; then palpitation of the heart comes on, the bowels are costive, and the urine is high coloured; and though none of those frightful signs occur which portend any fatal termination, still there are many complaints urged by the patient, which fully prove that a state of disorder has been consequent upon the undue or careless administration of a very powerful remedy.

The enlargement and induration of the spleen, which attend upon mismanaged intermittent fever, are not uncommonly produced by the neglect of proper means previous to the use of cinchona, or its administration in the wrong stage; the increase is sometimes enormous during long protracted fever. Hoffman has an instance in which it weighed fifty pounds; and Boscus asserts that his father met with a spleen which weighed thirty-three pounds. Many instances have occurred in which it was likewise remarked by the ancients. This state of the spleen is accompanied by ulceration of the legs. These sequelæ of intermittent fever seem to depend upon its long duration, or its improper treatment, and, as our knowledge of the uses of the spleen in the animal economy is not complete, various have been the opinions that have been formed. It, however, appears most probable, that during the cold stage the blood that should circulate in the capillary vessels is determined to the internal viscera, and as the spleen is but a vast venous network, in which the cellular is substituted for the vascular form, it is not unlikely that a venous retardation occurs, and the alterations which depend upon a change in the consistence of the blood which fills the splenic cells occurs, and this, as Andral has observed, is discoverable after death. I cannot imagine the spleen to be the cause of intermittent fever, or to be connected in any way with its development, for the morbid change has little to do with the exciting cause; but the brain and nervous system are more immediately exposed to miasma, and generally first indicate that the system has been poisoned. To ascribe to the spleen this effect, would be to acknowledge "post hoc propter hoc."

You are, doubtless, aware that an intermittent fever consists of a fit and of an interval, and the treatment is adapted to this division. During the paroxysm the object is to diminish its violence; during the interval, to prevent its recurrence, and it is for the latter of these purposes that Peruvian bark is demanded. If, however, this is injudiciously administered more mischief than good is the result. The more regular is the paroxysm, and the more decidedly periodic is the interval, the more is the certainty of the benefit to be derived from it. If, on the other hand, during what should be the cessation of the paroxysm, febrile symptoms

are developed, the probability of your aggravation of the disease is very great. Should, during the intermission, headach, hot skin, quick pulse, disordered tongue, be present, you must not think of prescribing bark. Should any inflammatory action be suspected to be proceeding in the brain, the thoracic or abdominal viscera, you must abstain from the use of this remedy until all the symptoms which betoken it are entirely subdued. Your great object must be first to reduce the intermittent fever to a regular form; this sometimes occurs spontaneously, if the disease be not tampered with; too much meddling with fever is oftentimes much more mischievous than the disease itself; still emetics and purgatives are generally to be had recourse to. The vegetable emetic, ipecacuan, is the best, and may be given in the form of wine; it does not distress the patient so much as antimony. The purgatives should be principally directed to the cleansing the surface of the intestinal canal, rather than to an increase of the quantity to be excreted. Rhubarb and chloride of mercury are the most useful. Bloodletting is considered a valuable agent for bringing an intermittent fever to a state of regularity, by some of our best practitioners. I must refer you for such an opinion, well stated, to the lectures of Dr. Clutterbuck, which you will find in THE LANCET for the year 1826. He very judiciously tells you that he does not contend that bleeding is always or even generally proper in the cure of intermittents, but points out the states in which it is necessary. When the disease has become, either from its own power, or by the aid of art, regular, when the sordes from the *primæ viæ* have been removed, and when it is not complicated with visceral disorder, cinchona is to be given freely during the intervals, in as large doses of the powder as the stomach can bear; and the action should be kept up by its frequent administration; from half a drachm of the coarsely powdered bark to two or three drachms, should be given every second or third hour, unless either vomiting or purging supervene; for, if either of these circumstances occur, the probability is that your patient will derive no advantage whatever from it. The time to commence is as early as possible after the paroxysm has ceased, and to go on with it until the beginning of the next. It is to Sydenham's practice, which was the result of long and anxious consideration, that we are indebted for this mode of practice; he likewise points out that the purging which very often accompanies the use of cinchona may be obviated by the administration of laudanum; he observes that there is no inherent purgative virtue in that medicine, yet a violent purging is frequently occasioned from some peculiar idiosyncrasy; and, in such cases, he ordered ten drops of laudanum to be given in a little wine after every other dose of the powder. This system has been pursued with the greatest success, and maintains to this day the highest reputation, though, of course, modifications and improvements in practice have occurred.

The preparations of the Pharmacopœia furnish us with two tinctures, one a simple maceration for fourteen days of eight ounces of heart-leaved cinchona cordifolia (yellow bark) in two pints of proof spirit; of this a drachm is the commencing dose. The other preparation is a compound tincture, made of lance-leaved (cinchona lancifolia) pale or quill bark bruised, four ounces; orange-peel dried, three ounces; serpentary bruised, six drachms; saffron, two drachms; cochineal powdered, a drachm; proof spirit, two pints; these are macerated for fourteen days, and then strained. This is a grateful and agreeable stomachic, of which a drachm is prescribed, and is founded upon a formula given to us by Huxham. The infusion is formed of an ounce of the lance-leaved, the pale or quilled bark, and boiling distilled water, a pint; the maceration goes on for six hours in a vessel lightly covered, and then strained; an ounce of this is the usual dose. The three varieties, the cordifolia, or yellow bark; the lancifolia, pale or quill bark; and the oblongifolia, or red bark, are all prescribed by the New Pharmacopœia, in the form of decoction. Take of each variety, as may be directed, ten drachms of bruised cinchona, distilled water, a pint, boil for ten minutes in a lightly covered vessel, and strain the liquor while hot; of this an ounce is the dose. Sydenham, not with his usual judgment, has said, that to add anything to the bark argues either ignorance or craft; but this is contrary to the experience of other practitioners. It is true that any of the other barks rather diminish the efficacy, whilst they increase the bulk of the medicine, but there are certain drugs which have been found eminently to promote the action of cinchona. The root of the aristolochia serpentaria, or Virginian snake-root, added in the dose of ten or twenty grains, was found, in the violent intermittent fever of 1784, remarkably serviceable; and in some cases that then occurred, myrrh was added with great advantage; a drachm of carbonate of iron, with the same quantity of black pepper, united to an ounce of bark, has likewise been much approved.

Sydenham's prescription was,—Peruvian bark, ℥i.; syrup of roses, ℥ij.; make an electuary thereof, take the quantity of a large nutmeg every morning and night on the intermediate or well days, till the whole be taken, and let it be repeated thrice, interposing a fortnight between each time. He also says, "As some persons can neither take the bark in powder or in electuary, nor in pills, I give them an infusion of it, made

with ℥ij. of bark, grossly powdered, and infused cold for some time in a quart of Rhenish wine, which being several times passed through a fine strainer becomes so clear as not to be disagreeable to the nicest palate. ℥iv. of this infusion, after it has stood some days, should seem equivalent in virtue to a 3 of the bark in substance,—it is neither unpalatable nor lies heavy upon the stomach."

It is not only in fevers bearing this intermittent character that cinchona has been found thus successful, but in all those diseases which investigation and observation have proved to be periodic; and the same law holds good in their treatment, that their therapeutic influence is best promoted by exhibiting them during the intervals of disordered function, rather than at the moment of their accession; and this whether cinchona itself be administered, or the alkali—the quinine—of which I shall shortly have to speak.

In the painful affections of which I have had occasion to speak to you, during the paroxysms of which narcotics are serviceable, the bark given whilst the intermission takes place, has been found the most valuable and fortunate mode of treatment. The same may be said of epilepsy, of lunacy, where they have worn a periodic type; during the moments of relief a persevering system of bark has often checked the return of the paroxysm, and eventually cured the disease. The convulsive affections which are attendant on disordered states of the nervous system, all appear to have a periodicity about them, but its cause has as yet escaped the inquiry of investigators; over these the cinchona exerts an unexplained control, but it is only during the cessation of the actions that it can with propriety be tried, for it rather tends to increase than mitigate disordered states, when they are at their utmost violence. Its specific action seems to be to cause the organs to perform their varied functions with regularity and with order; it seems to exert over the human economy a decided control, so that the inordinate deviations are prevented from recurring. Its utility in the termination of all acute diseases, seems to depend upon this power of restoring the lost equilibrium of the system; and any one who has been in the habit of treating the most hopeless cases, must look with gratitude to a therapeutic agent possessing power so extraordinary as does the Peruvian bark.

CASE OF

RUPTURE OF AN ANEURYSM OF THE COMMON CAROTID,

AND

LIGATURE OF THAT ARTERY NEAR ITS ORIGIN FROM THE INNOMINATA.

By T. Argyll Robertson, *M.D., Lecturer on Surgery in Edinburgh.*

The following instance of aneurysm, besides being interesting in several points, appears more particularly worthy of being placed upon record, as being one of the few cases in which a ligature has been applied to one of the larger arteries of the body, *nearest* to their common origin from the heart, with *perfect ultimate* success.

Major ——, the subject of the case, is now in his fifty-second year. In April, 1836, while hunting, his horse, when at full speed, put its foot into a rabbit-hole, by which both it and its rider were brought to the ground with great violence. Major —— received a severe wound over the left parietal bone, which bled profusely, and he remained for a short time stunned, and in a state of insensibility. From that period he suffered from stiffness and pain in the right side of the neck, resembling what is usually termed a crick, accompanied by shooting pains over the whole right side of the head; occasional attacks of giddiness, slight strabismus, and double vision followed, the last to so great a degree that he was forced to give up his favourite amusement of hunting, every gate, fence, &c., appearing to him double. The sight was particularly confused when looking straight forward, and still more so to the right. He likewise lost all idea of distances. On shutting either eye vision again became distinct. The motions of the iris in each eye were perfectly natural. The appetite was good, and bowels regular. Pulse rather full, but in other respects natural. In addition to the above symptoms, in December, 1836, he began to suffer occasionally from a feeling of numbness and coldness of the left arm and leg. At this period he placed himself under the care of Professor Alison and myself. Looking upon the symptoms as indicating a tendency to an apoplectic attack, we placed him upon a regulated diet, his bowels were kept open, leeches were ordered every second or third day to the temples, or behind the ears; he had cupping-glasses applied upon two or three occasions. The head was shaved, and sponged several times a day with cold water, and he was desired to take regular but moderate exercise, and to reside quietly at his seat in the country. Under this treatment his health was much improved, and his vision was almost perfectly restored.

About the middle of January last he first discovered a swelling on the right side of the neck, accompanied by enlarged tonsils, slight sore throat, and some difficulty in swallowing. The swelling in the neck was supposed to be simply an enlarged gland, and did not attract particular notice. Leeches were ordered to be applied from time to time, more especially if it should inflame or become painful.

On the 20th of March, without any premonitory symptoms, at 10 o'clock, P.M., a sudden gush of blood took place from the mouth; it was discharged in gulps or mouthfuls in rapid succession; it ceased spontaneously after half an ordinary wash-hand basinful of blood had been lost; he retired to bed, and slept very soundly during the whole night.

The following morning he rose at eight o'clock, but had scarcely reached his dressing-room, when the hæmorrhage returned, and, to use his own expression, the blood literally poured from his mouth; he soon fainted and fell upon the floor, breaking a foot-pail in the fall; about fifty ounces of blood were at this time discharged by the mouth, and a considerable quantity must have passed into the stomach, as the stools afterwards consisted almost entirely of coagulated and grumous blood. By the two hæmorrhages he must have lost upwards of one hundred ounces of blood. The bleeding now ceased, and he rallied a little and procured assistance. He remembers distinctly that at this time he shook very much, and felt excessively cold. Having taken a laxative the previous night, he had now an urgent call to stool, and was carried by his servant to the water-closet, when he had a copious alvine evacuation, after which he again fainted. On recovering he still shook very much, and felt very cold; he was put to bed and warm bottles were applied to the feet.

On arriving at the patient's residence, I found him perfectly composed and tranquil, with the pulse scarcely perceptible at the wrist, and continuing to beat about forty-five strokes in the minute. On examining the neck I found a tumour extending from near the angle of the jaw to *within one inch* of the sternum, and projecting laterally to about three inches. Its surface was smooth, equal, and rounded, and a very obscure pulsation could be detected. Judging from the state of the circulation, and from there not having been the slightest return of the bleeding since 8 A.M., that there was not immediate danger, I thought proper to postpone attempting to secure the carotid below the seat of the aneurysmal swelling (evidently the only surgical resource that was left me), in order that I might have the benefit of daylight for the operation; and I sent off to Stirling for Mr. Forrest, that we might have the advantage of his advice and assistance in so important a case.

In consequence of the aneurysm being seated so low down in the neck, the external incision was limited to little more than an inch, following the course of the sterno-mastoid, from the sternum upwards. On dividing transversely the sterno-thyroid and a few fibres of the sterno-hyoid muscles, a narrow projection of the aneurysmal tumour, passing between the artery and trachea, was brought into view; so narrow that I at first supposed it to be the artery somewhat dilated, and passed the aneurysm-needle round it. It was, however, about double the size of the artery, and its coats were thinner than natural. On examining the parts more minutely, I discovered the carotid displaced laterally by this prolongation of the sac. The pulsations were feeble, though perfectly distinct; the situation at which it was exposed was within a finger's breadth of its origin from the innominata, and when the finger was applied to this point the carotid was felt pulsating on its palmar,—the innominata on its lateral surface. Immediately above this point the vessel swelled out into the aneurysmal tumour. The ligature was therefore applied *within half an inch* of the *origin* of the artery. During the performance of the operation neither vein nor nerves were seen. The operation itself was necessarily tedious and difficult, in consequence of the limited extent of the external incision, the deep situation and unnatural displacement of the artery, and the importance of the organs by which it is surrounded. At one time I thought it would have been necessary to have divided the sternal attachment of the sterno-mastoid, but this was avoided by relaxing the muscle and drawing it outwards. The vessel was no further separated from its attachments than was necessary for the simple passage of the aneurysm-needle. On tightening the ligature all pulsation ceased in the tumour, and it was reduced nearly a third in bulk. No peculiar sensations were experienced by the patient, who bore the operation with the greatest possible fortitude. He was placed in bed, with the head considerably elevated to relax the parts, the lips of the wound having been previously brought together by suture, and supported by a strip of adhesive plaster. Strict antiphlogistic regimen and perfect rest were enjoined. The bowels were regulated by enemata, to avoid any risk of sickness, vomiting, or hypercatharsis from the exhibition of cathartics. The wound healed by granulation; at first the discharge was thin and slightly tinged with blood, but gradually it assumed the characters of healthy pus.

On the seventeenth day the ligature separated, and the wound speedily healed. The aneurysmal tumour rapidly disappeared,

and now no trace of it whatever can be discovered. From the period at which the ligature was applied up to the completion of the cure not an untoward symptom appeared. On the second day after the operation the pulsation in the branches of the external carotid was distinct. During the third week a few drops of blood were discharged from the right nostril, accompanied by a little irritation giving rise to a great desire to sneeze, probably depending on the new arrangement of the circulation.

At the present time, 28th September, six months from the date of the operation, Major —— is in the enjoyment of the most perfect health.—*Dublin Journal of Medical Science, &c.*, January, 1838.

ON THE TREATMENT OF

CONTRACTION AFTER BURNS.

By L. TEELING, Esq., *Surgeon, Dublin.*

THE treatment of burns, in their various degrees, is a subject which has long received much attention, and concerning which much contrariety of opinion has prevailed; but, though the principles of treatment, in the earlier stages, are now, perhaps, more generally understood, it will, I think, be admitted that little improvement has been effected in the management of the subsequent stages, or period of cicatrisation, of severe cases.

The various means which have been recommended for guarding against the contractions which so commonly follow burns of the fourth degree, in the neighbourhood of the neck, the joints, &c., whether consisting in the employment of splints, bandages, and other mechanical contrivances, or in the application of such dressings as will occasion the process of granulation to proceed very gradually, seem to be scarcely further efficacious than inasmuch as they retard what must eventually take place in a greater or less degree; and the different operations introduced, by Mr. Earle and others, when such contraction has already occurred, must, I believe, be also admitted to have too often failed, even in the hands of the most judicious and experienced surgeons.

Although it cannot be denied that the cutis, or, indeed, *any* texture of the body, is capable of being restored, the complete and permanent regeneration of the tegumentary tissues, in particular, seems rarer than pathologists generally suppose, as will be evident from a strict examination of cicatrised ulcers in the intestinal mucous surface, or in the texture under consideration. Indeed, some practitioners contend that "accidental" tissues are always deficient in certain of the anatomical characters, which they conceive necessary to establish their identity with the original production. From the deficiency of vital action which attends granulations where a burn has produced a loss of substance, the resulting cicatrix is peculiarly incapable of resisting the power of the absorbents. Nature seems here to have determined that what was temporarily supplied, to heal the breach of continuity, should be again withdrawn when that purpose is accomplished. Its reabsorption may be retarded, but can never be wholly prevented,* and the force with which contraction will sometimes occur is sufficiently evinced in a case mentioned by Cruveilhier, where the carpus was gradually dislocated from the radius in consequence of a burn on the forearm.

On lately witnessing a case, where, from an extensive burn on the neck, great contraction and deformity had ensued, and which had been considerably, and, as was thought, permanently remedied by the skilful performance of the operation proposed by Mr. James,† but where now, after an interval of *eight years*, contraction has again taken place,—it occurred to me that the Taliacotian, or, rather, the Indian operation, for restoring the nose, might, in such cases, be applied with more decided and permanent benefit than any which is at present practised,—that if the indurated cicatrix were cut away to where the circulation and vitality of the old cutis was active, and the latter were allowed to retract, an adequate flap, from an adjoining part, might easily be turned in, and all fear of future contraction in the seat of the burn removed. In cases where the neck is the seat of the injury, the cutis covering the sternum, the back, or the superior part of the shoulder, might be made to supply the required flap, and where the joints, or the eyelids, are involved, it could be generally supplied by the adjacent surface.

The chief object in the rhinoplastic operation, is the improvement of the appearance of the patient; and, although some persons are of opinion that the improvement effected is not sufficient to warrant its performance, the operation has received the sanction of our best surgeons, and been practised and improved by Carpue, Liston, Colles, &c. But here a much weightier consideration is involved,—relief from the most frightful deformity and inconvenience, while the difficulty of adjustment is by no means so great as in the former operation. From the extent of the flap which might be sometimes re-

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* It is, perhaps, owing to the want of permanency in the accidental tissues, that effusion sometimes recurs, many years after hydrocele has been cured by injection.

† "Med. Chirur. Trans.," vol. xiii. It is no small testimony to the merits of Mr. James's operation, that after nearly eight years of almost complete relief, the patient returned to have it again performed.

quired, it might be dreaded that adhesion would not readily take place, or that sloughing would ensue; but the inherent vitality of the flap, on which, as much as on that of the parts to which it is applied, success must depend, is proportioned to its extent. By a reference to the cases in which the Taliacotian operation has been performed by Carpue, Liston, Colles, &c., it will be seen, too, that the sensation, &c. of the restored organ became soon almost complete, and that the surface which was denuded to supply the flap, did not, eventually, produce much disfigurement; but were it even otherwise, in the present instance, it would be a trivial inconvenience in comparison with the evils which it is meant to obviate. It is unnecessary to insist that there is need of means in addition to those which are at present resorted to, to prevent or remove the wretched consequences of burns, with which all surgeons are but too familiarly acquainted. Every rational proposal for counteracting such effects should procure the consideration of the profession. The present is, I conceive, equally applicable, both where contraction has already taken place, and before the burn has arrived at the period of cicatrisation; and I am persuaded that its adoption, when the sore has been brought to a certain stage of improvement, would much shorten the period for treatment. I have not yet had an opportunity of giving it a trial, but others who are more capable of judging, to whom I have made the suggestion, think favourably of it, and will, maybe, be induced to put it to the test. In the meantime it may, perhaps, obtain the consideration of some of your numerous and enlightened readers.

8, Linnott-place, Dublin,
Dec. 22, 1837.

EXTENSIVE FRACTURE OF THE CRANIUM.

To the Editor of THE LANCET.

SIR :—The insertion of the following case n your Journal will very much oblige, your most obedient servant,

JAMES SMELLIE, Surgeon.

Glasgow, Dec. 22nd.

William Strong, æt. 38 years, engineer, of stout frame, short neck, and phlegmatic temperament, fell down, while in a state of intoxication, into an area, from two stories high, and was picked up some time afterwards by the night watchman, who found him lying on his right side, insensible, and bleeding extensively from a wound on the head. From the appearance presented by his clothes, and the ground around where he was lying, he evidently had lost a very large quantity of blood. He was conveyed to the police office, and had the wound dressed by the medical gentleman of that establishment, who, I believe, considered him to be in a very dangerous state. He continued insensible all night, but in the course of the morning was so far recovered as to be able to walk, with a little assistance, to the house of a friend. He now complained of pain in the head, was dull, and feverish, and had no recollection of the accident. He did not call in any medical assistance, but his friends, on examining his head, found a wound of about an inch and a half in length over the superior anterior angle of the right frontal bone, and from which it was presumed the hæmorrhage had taken place. The wound extended backwards, thus occupying nearly the spaces allotted to the organs of causality and ideality. The wound was dressed, occasionally, with adhesive plaster, and in the course of five or six days he returned to his employment, at which time he made little complaint, except of slight pain in the head, combined with a sense of heaviness, both of which had continued from the time of accident. He was in moderately good spirits, but it was remarked that he did not, or could not, give his usual attention to the commands of his employer; at least his ideas as to the nature of the directions which he received were sure to make him to be backing the engine when ordered to put her forward, and *vice versâ*, or when ordered to stop the engine, he would go and do something else. In fact it now became evident to those around him that his ideas were completely perverted and confused. He was still able to go to a friend's house, about a mile distant, in the evenings, and join in the exercise of vocal music, yet he was unfit to give any lengthened account of himself, or to tell any story, which could be understood. Anything further than the most simple idea he was incapable either of understanding or of uttering, still he sometimes was in good spirits, laughed, and tried to joke with his friends. His appetite, throughout, had been moderately good. He unfortunately indulged in the use of spirits.

On the 15th day from the time of accident, and after drinking too much, he complained of a sense of dullness over the whole body. The pain and the feeling of heaviness in the head were increased; he had rigors, and the wound was open, and suppurating freely; he felt confused, and was unable to understand almost anything that was said to him. He gave up drinking, walked upwards of a mile, took a little wine-negus, and went to bed. In the morning his friends found him insensible, and completely comatose, with stertorous breathing, with large quantities of frothy mucus pouring out of his mouth and nose. At 8 A.M. I saw him for the first time, when there seemed to be no alteration of the above described symptoms; the pulse

was full and sluggish, the pupils were much dilated, and quite insensible to the impressions of light; the face was swollen, and of a dark purple appearance.

VS. ad ℥xviii; a dozen of leeches behind each ear; head to be shaved; apply evaporating lotion; turpentine enema. He continued to sink, and died in an hour or two afterwards.

Sectio cadaveris, 24 *hours after death.*—In dissecting back the skin and muscle from the seat of injury, the periosteum, for about the space of six inches in circumference, immediately underneath the external wound, was of a dark yellow and orange colour, of a puffy thickened appearance, and but loosely attached to the bone. In the centre of this discolouration, and near to the external angle of the bone, a depressed portion of bone, rather larger than a shilling, was found. From the left boundary of this depression an extensive fracture was seen extending across the forehead into the angle of the left orbit, and from the edges of the right side of the depression; the fracture extended backwards until it was stopped by the squamous portion of the temporal bone. About two-thirds of the fracture (counting from its centre to the extremities) extended through both tables of bone, the remainder running only through the external table. On removing the calvarium the vessels of the brain presented a highly-engorged appearance; the depressed portion was found extending through both tables; its inner surface was rough and spiculated. About six drachms of coagulated blood were found underneath; it had formed a sac for itself, about two inches and a half in circumference, and corresponding with the depression. The sac was also partly filled with ill-formed pus, and was large enough to hold a good-sized pullet's egg, and was encircled by a rough and rather firm deposition of an unhealthy yellow appearance. The brain around this sac, and the depositions, were diseased, as it were, varying in colour from the pale yellow to the orange, or dark-brown shade, studded with spots, in a state of suppuration. The longitudinal sinus was partly filled with coagulated blood through its entire course; the blood in the other sinuses was in a fluid state; the temporal fossa was also partially covered with congula; there was no fluid found in the ventricles; the other divisions of the cerebrum and cerebellum were in a healthy state; none of the other cavities of the body were allowed to be inspected.

CASE OF RETENTION OF URINE AT SWANSEA.

"Tulit alter honores."

To the Editor of THE LANCET.

SIR:—Owing to the irregularity which attends the distribution of THE LANCET by country booksellers I have been unable to peruse the Number for Dec. 16 until this moment. It contains many very extraordinary statements relative to a case which occurred in the practice of Mr. Oliver, at Morriston, and in which one of the physicians to the *Swansea Infirmary* holds a conspicuous, but by no means an enviable, position. Had the name of this "experienced" practitioner been given courtesy would withhold me from making any observations that could, by possibility, occasion pain to my colleague. But I now feel myself imperatively called upon to state, that there are but *two* physicians attached to the *Swansea Infirmary*, a Dr. Edward Howell and myself, and as, during the period of the poor woman's sufferings, I was professionally absent at Clifton, it is therefore manifest that the "Infirmary physician" alluded to must be Dr. Howell, and such I believe is the case.

I was requested on my return home to see her, and found her perfectly restored to her wonted health, free from all pain, and inconvenienced only by the existence of the tumour. An incision through which the bladder was punctured had perfectly cicatrised, and here, in justice to Mr. Oliver, I ought to state, that however prudent it might have been for him, *had time permitted*, to have requested the assistance of some professional friend before having recourse to the operation, yet, under the circumstances of extreme urgency, the retention of urine from the Monday until Thursday night, the distended state of the bladder, and the apprehension of its momentary rupture, he was, *in my opinion*, fully justified in tapping that viscus, an operation which was not only skilfully performed, but attended with a successful issue.

The profession will no doubt justly estimate how far the corollary deduced from the case is correct, and to them I shall leave it, being only anxious to have it known that in this instance "the Infirmary physician" is not, your obedient servant,

DOUGLAS COHEN, M.D.

Swansea, December 26, 1837.

THE central organ for the excitement of the muscles of the face, and of gesticulation is, according to Retzius, the corpora olivaria, since the seventh pair, which in man are the nerves of mimicry, arise from those bodies. The muscular portion of the fifth pair arises, according to the same author, from the corpora pyramidalia.

THE LANCET.

London, Saturday, January 6, 1838.

It has been justly remarked that however well acquainted persons of a certain degree of education may be with the moral and political sciences, with the fine arts, and various other objects of study, which are more ornamental than useful, they exhibit evidence of deplorable ignorance of all matters connected with the science of medicine, though it is one with which their temporal happiness and welfare are so intimately connected.

This may partly depend on the supposition that medicine is a science *sui generis*,—one apart from all others; not to be approached by the *profanum vulgus*; not comprehensible, even in its slightest details, save by those who have devoted their lives to its cultivation. The popular notion to which we have just alluded is, however, we fear sanctioned, if not promoted, by the conduct of too many members of the profession. Some, even amongst the self-styled "heads" of that profession, affect to envelop all their proceedings in a mystery and secretness which, in the estimation of all rational men, savours strongly of charlatanism, but which the afore-mentioned "distinguished" persons consider as being absolutely necessary for a successful practice of the healing art.

Individuals of this class will order a drachm of bread-crumbs or flour to be made into pills, and, with the utmost gravity imaginable, will assure you that their dough-balls are little inferior in excellence to those of a Morison, Eady, or Labert; while, to keep up a semblance of decency, they attribute their "universal" effects to the mysterious workings of the human imagination.

Others, again, influenced by better intentions, but equally mistaken in their views, contribute to support the popular errors which prevail with regard to medicine, by catching up the most absurd and extravagant theories respecting the action of unknown agents, which they designate by new-fangled terms of foreign origin, and by exhibiting to the astonished and admiring vulgar, a series of phenomena, which, if not the result of trickery, could only be produced by something more than human power.

Assuredly medicine may now claim the title of "the divine art," and its high-priests denominate themselves ἀνθρωποι,* since the Galens and Celsi of the present day can, with a few "passes" of the hand, make the dead to feel, the deaf to hear, and the blind to see,—even through his nether end.†

We have seen mysteries of this kind periodically performed by churchmen, for the glory of some departed saint; history also informs us that similar wonders have been enacted during the infancy of society; the "passes" might, perhaps, be received as current coin at Timbuctoo, or at the court "of the King of the Cannibal islands;" but of the nineteenth century, and from an enlightened land, we had expected better things.

It were easy for us to follow up the evil tendencies of the mystification in which some medical practitioners delight, through all its ramifications, and to point out the baneful influence which any attempt at secrecy, any assumption of supernatural power, with regard to medicine, must exercise upon the public mind. True knowledge never shuns the light; the beauties of Science are, like those of Nature, most captivating to all classes of men, when unclothed; the minds even of the uneducated classes readily comprehend such principles of political and moral economy, as are laid before them in plain, unadorned language; and it may be safely assumed that the science of medicine would attain a much more sound and healthy

* Equal to the gods.

† These observations are applied to the proceedings and pretensions of foreign magnetists.

condition than it now exhibits, were every veil and cloud of mystery removed from it, and the mass of the community accustomed to regard it simply as one of the inductive sciences.

It is not necessary that anatomy should form part or parcel of the education of our youth, though the best instructed amongst them could not fail to derive improvement from a study of the noblest work of his Creator; neither do we contend that the different branches of knowledge which, united together, constitute the science of medicine, should form items in the sum of what is called "general education;" what we are desirous of seeing is an avoidance, on the part of all medical men, of that mysticism and secrecy in which medicine has hitherto been involved; we should wish to witness the triumph of common sense in the rejection of all words and terms of foreign and barbarous origin; we would admit the public, in part, at least, behind the scenes, and not by an affected employment of uncouth symbols, and unknown words, endeavour to give to the art of medicine a factitious degree of importance, and, as it were, sanctity, which every honest and true votary disclaims.

The progress of quackery, and the infatuated ignorance which prompts men to prefer the charlatan to the educated practitioner, have been the subject of long and loud complaint on the part of the profession. We refer our readers, for some judicious observations upon these points, to a letter of Mr. IKIN, which will be found in another part of the Journal.

There is no doubt but that the infatuation of the public is great, and that the quack-nuisance is becoming insupportable; the evil is at present irremediable, but we trust that legislative measures will soon sweep away the abuses in which all the medical institutions of this country, without exception, abound; in the meantime it may be worth while to inquire how far the present progress of quackery may not have been promoted by the conduct of medical practitioners themselves.

What is the essence of quackery? Secrecy. Without it the quack could not exist; mysticism and ignorance form the body and blood of quackery; ignorance on the part of the recipient; mysticism on the part of the distributor. If this view of the subject be true,—if, to use a professional phrase, we have discovered the morbid elements which constitute the disease, the discovery of a remedy and its application will not present obstacles of insurmountable difficulty. "Remove the cause and the effect ceases," is a well known medical adage. Remove ignorance from the people, and mysticism from the practice of medicine, and the quack's avocation will soon be gone.

The daily improvement which is to be observed in the means of education offered to the poorer classes, leads us to hope that one source of the evil just alluded to will ere long, be dried up; as knowledge progresses, as the people become more familiar with the operations of physical agents, more accustomed to observe and trace the connexion between cause and effect, the power of the quack must diminish; but, on the other hand, we must not forget the beam which sticks in our own eye; we, of the medical profession, must consent to abandon all show of mysticism and secrecy; we must cast aside our "bread-pills," we must adopt the vernacular tongue instead of the barbarous dialect which we are pleased to denominate the "language of the Romans;" we must exchange our symbols and our hieroglyphics for intelligible terms; and we must seize every opportunity of rendering the facts and principles connected with the science of medicine, approachable by, and comprehensible to, the public. When these improvements shall have taken place, and not until then, we may expect to struggle with great hope of success against the encroachments which quacks, and other pretenders to medical science, have made on the domain of the medical profession.

The receipt of a second letter from "W. C. O.," whose first communication on Animal Magnetism was published in The Lancet of Dec. 23rd, induces us to notice the course which we are resolved to pursue on the much-agitated subject of the writer's criticism.

In the first place, it may be remarked, that we declined to insert the speculations of Baron Du Potet which have since been printed in another journal. We likewise refused to publish a vast number of letters and elaborate essays, replete with arguments as well as hypotheses, on the same question. As, however, the letter of "W. C. O.," which we published on the 23rd of Dec., had reference to a fact which had been mentioned in a previous communication from the pen of Dr. Sigmond, we did not feel altogether justified in withholding it from our pages. But here we are determined that, for the present, at least, *criticism*, whether speculative or philosophical, on the subject of animal magnetism, shall not advance a single inch in our columns. While, however, our pages are thus closed against the mere imaginings of logicians,—against querulous disputants, as well as against writers who are disposed to deny the existence of every fact or phenomenon which does not fall within the range of their comprehension, we shall throw open our columns, willingly and unhesitatingly, to the insertion and publication of all properly-authenticated records of *acts* which, it is alleged, have been established by the operation of Animal Magnetism.

An adherence to this plan necessarily excludes from our pages the second communication of "W. C. O.,"—that is, until it would appear that no *new* facts can be collected, or until several similar effects, on any one branch of the subject, shall appear to furnish sufficient data whereon to found a systematic course of argument. When we first heard that Dr. Elliotson had applied his mind to this subject we received the announcement with pleasure, because we had reason to expect that he would pursue the investigation to a determinate satisfactory result. We regard the labours of Dr. Sigmond in the same light, and as these distinguished physicians have commenced the inquiry,—as their statements have obtained for the subject of "Animal Magnetism" a degree of public attention which it would not otherwise have received, we call upon them, in the name of the profession, to prosecute their researches with the utmost vigour—to promulgate, from time to time, without reserve, whatever facts they may notice, and avow, boldly, at the conclusion of their inquiries, as becomes men of science, learning, and character, whether what has been denominated "Animal Magnetism" is a mere illusion of disordered imaginations and an instrument of fraud in the hands of charlatans, or whether it has any existence in a natural cause, and whether its effects are capable of being developed by an agency, which can be exercised by the artifice of man.

With regard to our own belief in the existence or the non-existence of "Animal Magnetism," we still scrupulously refrain from offering any exposition.

We regret to say that for some time past typhus fever has been prevalent to an unusual degree in Dublin, where several medical men have fallen victims to the disease. Amongst them we have to lament the death of William Wallace, M.D., senior surgeon to the *Jervis-street Hospital*. Dr. Wallace was an old and able contributor to the advancement of medical science in the pages of this Journal. He had barely completed some new and highly interesting researches on the structure of the negro's skin, which were illustrated by numerous original drawings, and published in recent numbers of The Lancet, when death overtook him, in the prime of manhood, as he was about to reap the fruits of his long and meritorious exertions.

The fever, which attacked him while in attendance on some poor patients, terminated fatally within a few days. We must lament the loss of a friend, but our sorrow is tempered by the recollection that he has perished a martyr in the righteous cause of humanity.

Treatise on Hernia, comprising the Surgical Anatomy, Operative Surgery, and Treatment of that Important Disease in all its Forms, &c. By MALCOLM W. HILLES, Author of the "British Dissector." London, 1838. Henry Renshaw. 8vo. pp. 52.

MR. HILLES has presented us with a concise and sufficiently accurate account of the different forms of hernia, and of the various methods of treatment, both palliative and operative, which have been proposed for the treatment of that disease. The work is a simple compilation from the writings of some of the best authors (chiefly from those of Sir A. Cooper) on hernia, but contains nothing which is new, or particularly worthy of attention, if we except a rather loosely written description of a new mode of operating in cases of femoral hernia, comprised in the following sentence:—

"We have elsewhere * advocated the practice of dividing the stricture external to the hernial sac, and the compressing the outer surface of the sac, so as, if possible, to return its contents. If we succeed, our object is accomplished; if not, it is evident that the stricture exists internally, and, therefore, it becomes necessary to lay open the hernial sac, in order to remove the constriction.

"This method of operating approaches nearer than any other to the reduction of the hernia by the *taxis*, and by it we avoid wounding the peritoneum. Thus this operation is less likely to be followed by peritonitis than those in which the membrane is divided. It is true that many cases are recorded of wounds of the peritoneum, which were not followed by any untoward symptoms, but these only constitute exceptions to a general rule, and cannot be received in opposition to the experience of ages."

The idea of dividing the stricture, without opening the sac, is not a new one, but Mr. Hilles is, we believe, entitled to whatever merit may arise from having suggested the propriety of endeavouring to reduce the bowel by pressure, without laying open the hernial sac, or returning the sac itself, together with the contents, into the cavity of the abdomen.

J. L. Petit was one of the first surgeons who proposed and advocated the propriety of operating without opening the hernial sac. This method is also recommended by Colliex, of Turin, and more recently by Mr. Aston Key. The various objections which have been offered against, and repeated in part by Mr. Hilles, are carefully examined and answered by Colliex. The question, however, can only be determined by extensive experience.

The subject of hernia, one of the most important upon which either the anatomist or the surgeon can exercise his powers of observation, presents a great number of points which still remain undecided, notwithstanding the immense quantity of labour which has been spent upon them. From Mr. Hilles, as an anatomical writer, and teacher of anatomy at a London school, we had a right to expect something more than a mere routine description of the anatomy of inguinal and femoral hernia; and something more complete than an account of surgical proceedings which would barely satisfy an examiner at Lincoln's Inn Fields.

Within the last five years, the anatomy of inguinal and femoral hernia has occupied a great share of the attention of a few young anatomists, among the most assiduous and distinguished of which, we may mention Dr. Alexander Thomson, of Paris. It is to be regretted that Mr. Hilles did not make himself acquainted with the researches of Dr. Thomson, and present them under an English form to his readers. For our own parts we should have preferred any attempt at contributing to, or extending, our knowledge of so important a disease as hernia, to a fatiguing repetition of facts which are familiar to every one who has the slightest pretension to the name of anatomist.

Perhaps, however, Mr. Hilles intended his work for the mere student. Were such the case, we should be inclined to recommend it to the student as a brief account of the anatomy and surgical treatment of hernia, which presents the advantage of being most scrupulously orthodox; in every other respect it contains little which we can either praise or condemn.

* Lancet, 1836-7, vol. ii., p. 116.

RUMINATION IN THE HUMAN SUBJECT. — Dr. Elliotson has reported a remarkable example of rumination in the human subject. In addition to this case, Professor Valentin mentions a child, two years of age, who fell under his notice, and in whom this anomaly was extremely well marked. The father of the child likewise presented the same phenomenon.

ANIMAL FOOD AS A PREVENTIVE OF EPIDEMIC FEVER.

To the Editor of THE LANCET.

SIR:—I have been induced to make the few following remarks on fever, partly from the ravages which it is at present committing in most of the large and densely populated towns throughout the kingdom, but principally on account of a paragraph which has been going the round of some of the northern newspapers, in which the writer attempts to promulgate a doctrine regarding the extermination of fever in large towns, by distributing animal food, stating that it is the want of such food, as an article of diet, that predisposes to fever the inhabitants of crowded and ill-ventilated situations, denying the advantages of pure air, cleanliness, and ventilation. The author of the article has made many vague, unsatisfactory, and, occasionally, incorrect statements, which, in the present improved state of medical science, cannot be allowed to remain uncorrected.

The "Glasgow Herald," of the 19th of December, contains a long and garbled account by Dr. Hannay, regarding what is termed "*a plausible* plan for the extermination of typhus fever, as at present prevailing in the great towns of the United Kingdom."

Dr. H. commences by a very strutting assertion, "that its presence is *entirely* owing to the want of animal food. Most writers," he says, "insist on the want of pure air and the want of cleanliness as the most common causes of fever."

The efficacy of these two salutary measures, and, in fact, most certain prophylactics in fever, are entirely negatived by the Doctor, who seems to think that if any number of poor people could possess themselves of a large quantity of animal food, they would ever afterwards be exempt from fever, although incased, as formerly, in their filthy habiliments, and inhaling an atmosphere loaded with the noxious miasms arising from the decayed matters so abundant in those localities which they inhabit.

Dr. H. states, "that during the epidemic of 1816, 17, and 18, out of 59 cases of fever which came under his care, there was not one of the patients who was in the habit of dieting at any time on animal food." The writer of the article, as a *lecturer on medicine*, ought to be aware of the inutility and even pernicious effects arising from such vague statements, particularly when given publicity to in the columns of the public press. He seems to be unacquainted with the fact, that the mortality of a class of people can only be determined by the deaths out of a given number of living in a given time. He mentions that during an epidemic which continued for three years, he visited during that time 59 patients, ill of fever, who were in the habit of living on vegetable food. He does not state whether they were 59 cases which occurred in 100, or 59 in 1000, and even thinks it unnecessary to mention the mortality in his 59 cases.

The only mode by which Dr. H. can arrive at any correct conclusions regarding the assertions which he makes, would be to contrast the vital statistics of a population living entirely on vegetables, with another that subsisted as much as possible on animal food, living, in other respects, under the same circumstances, and subject to the same causes. Even, then, as epidemic fever might prevail during one year amongst the population living on vegetables, or *vice versâ*, amongst those subsisting on animal food, and thus render the prevalence of fever and mortality of this or that community the greater; therefore Dr. H. must see the propriety of continuing his investigations on this point during a series of years, as it is rather by taking the average of many years, than by giving publicity to a few crude speculations on a trifling number of cases, that we can in the slightest degree either aid the advancement of medicine, or alleviate the sufferings of our fellow-creatures.

Dr. H. says, "Fever breaks out in the best ventilated houses and situations." This is a circumstance which the most ignorant are aware of with the Doctor, who very ingeniously avoids, as in his other statements, the comparative mortality of fever cases occurring in the two situations. He attempts to illustrate this point by stating, "that in a village in the south of Scotland, fever broke out and destroyed a great many of the inhabitants, who, be it remarked, were most cleanly in their habits, and lived in houses as well ventilated as any in the kingdom, *but they fed almost entirely on fish, and seldom partook of animal food.*"

This division of organic matter is certainly new, and for absurdity baffles comparison. According to the most eminent naturalists, *fishes* have always formed one of the primary subdivisions of the great class of vertebrated animals; but the investigations of by-gone years are in one moment annihilated by the astounding discovery of the worthy Doctor, who now considers fish, in general, as appertaining to the vegetable kingdom. That fish contains less nutritious matter than the flesh of warm-blooded animals is well known, but so far from their being destitute of that property, it is proverbial that the inhabitants of fishing towns are generally a healthy race of people.

To prove that the prevalence of fever depends *entirely* on the want of animal food, Dr. H. contrasts "the frequency of typhus in the east end of the city, compared with

that in the west end, and attempts to show that its melancholy prevalence in the former is owing to the poorer inhabitants not obtaining their meals of animal food with the same regularity as the wealthier inhabitants of the west end."

The latter occupy large, commanding, and well-ventilated houses, situated on the most elevated part of Glasgow, and enjoy habits of cleanliness. The former inhabit the oldest and lowest part of the city, which is very closely built, and still more densely populated, in some instances as many as eight and ten persons sleeping in one small and ill-ventilated room. There is also a filthy stream running through this part, the sides of which are strewed with dead animal and vegetable matter, in a state of decomposition. This rivulet and the river Clyde generally inundate those localities once or twice annually, and in innumerable instances entirely filling the houses, which the miserable inmates are under the necessity of again inhabiting before the water has altogether subsided.

"That it cannot be want of cleanliness alone that causes fever, is demonstrated by the number of young persons working in factories, who fall victims to this malady, and whose habits are as cleanly as many living on a better fare."

Dr. H. has either visited but few of those individuals at their houses, or he has never taken the trouble necessary to procure that correct information which would entitle him to make such assertions as he has done to his private pupils, or the public generally. At one time I had charge of four of these cotton factories, and I invariably found the majority of the young persons employed in them dirty in their persons and habiliments, and inhabiting ill-ventilated and uncomfortable houses. They seldom undergo a perfect ablution, except at the end of each week, and their clothes, which are saturated with oil and other matters, are worn for an indefinite period. The vices, also, which the very youngest of them are guilty of, to an extent almost incredible, are sufficient to account for the prevalence of fever amongst them.

This class of operatives seldom want animal food. I have had opportunities of seeing them at all times, and I invariably found that they partook freely of animal food, the ample sums of money which they obtain by their occupation enabling them to do so, as instances are by no means solitary where a father, three sons, and a daughter, in constant employment, have been known to earn 200*l.* annually.

In the same paper the writer mentions, "that in England animal food is more freely used than in Scotland."

If the learned lecturer would take the trouble of visiting this country, he will find it an undeniable fact, that the poor and working classes in every town live as much on vegetable food as their neighbours in the North. Here the labouring part of the population has only one good meal of animal food during the week, which is generally reserved for Sunday. In the higher circles, the numerous vegetables which invariably form part of the daily fare, are as much, and frequently more freely partaken of than animal food, which is a very unusual circumstance in Glasgow, where you seldom find any vegetables at the table, with the exception of the potatoe.

Dr. H. mentions that "his views are supported by the much less frequent occurrence of fever in the English towns, where they live more on animal food. In Liverpool he found less fever prevailing than in Glasgow, and there more animal food is consumed than in this city."

Dr. H. must either acknowledge himself to be ignorant of the statistics of Great Britain, or that he has perverted existing facts. In 1831 the population of Glasgow was 202,426; Liverpool was 189,242; number of cases of fever which have been treated in the Glasgow fever hospital, during the period of seven years, ending in 1836—1842.

I cannot at present give the average in Liverpool for so many years, but in 1836 there were treated in the fever hospital of that town, 1697; of 1258 treated in *Glasgow Hospital* during the year 1835, 125 died; of the 1697 treated in the Liverpool hospital, 266 died, proving that fever is not only as prevalent in Liverpool, but more fatal than in Glasgow. It will, no doubt, be stated, that the returns of fever in Glasgow, during this year, are much increased, but it is only so as an epidemic, which will subside, and may in the same manner reach Liverpool, or any other town in England. Dr. H. is not the only practitioner in Glasgow who has drawn erroneous conclusions from the returns of the hospitals, or rather the "houses of recovery," in the provincial towns of England.

Dr. Robert Cowan has lately published a pamphlet, in which he contrasts the number of patients treated *in the hospitals* of Leeds, Manchester, &c., &c., with that of Glasgow. That gentleman does not mention the number of patients which these respective hospitals are capable of containing. He will find, on examination, that the hospitals, or "houses of recovery," in the English towns which he mentions, are not only small, but their funds are scanty, and they are not exclusively set apart for the treatment of fever; they even, in many instances, refuse the Irish patients who present themselves, and give preference to the English residents.

It is impossible that the returns of a small hospital can be as great as those of a very large one; statistical returns, however, prove that the mortality of the population

in the English towns is as great as that of Glasgow.

It is more probable that the various causes which I have mentioned, as existing in Glasgow, are more likely to produce and render fever more fatal than the occasional want of animal food.

The proposition of Dr. H., viz., supplying the inhabitants with animal food, although it may prove a useful adjuvant, will never of itself render fever less prevalent, whilst the grand cause still exists, whilst the close built, densely populated, and worse ventilated habitations of the poor are allowed to remain.

Removing these, and building more commodious houses, in wider streets, with better drainage for the perfect removal of all offensive matter, whether solid, liquid, or gaseous, can alone tend to diminish, in the slightest degree, the prevalence of typhus fever. I am, Sir, your most obedient servant,

M. D.

*** I am indebted for the returns regarding the fever hospital of Liverpool, to that valuable little work, the "British Medical Almanack," for 1838.

OBSERVATIONS ON

PRACTISING DRUGGISTS

AND ON

MEDICAL POLICE.

To the Editor of THE LANCET.

SIR:—Allow me, through the medium of your Journal, to address a few words to the profession, and to call its attention to the increasing evils of one of the numerous forms of quackery, so prevalent in this country, the existence of which casts a severe reflection on the wisdom and policy of that part of our legislative system which is connected with the science of medicine.

The form of quackery to which I would now shortly allude, is that of druggists prescribing for disease, and interfering with the duties of the medical practitioner. The extent, the danger, the injurious effects of such proceedings, loudly demand energy on our parts, in seeking for a removal of such a crying abuse, and insisting on a thorough revision of the obnoxious laws that now govern, or, rather, misgovern the practice of medicine and surgery.

Your Journal has long been a powerful agent in exposing the numerous abuses connected with our medical institutions, and has unceasingly given every opportunity to the members of the profession to make known their grievances, and to aid them in obtaining redress. Still, unless more active co-operation is afforded to you and our other friends in Parliament, we cannot expect the Legislature to exercise its power on our behalf. Other professions, trades, and bodies of men (dissenters to wit) take care to lay their grievances before the Government of the country, and loudly, perseveringly, and firmly, demand redress; why should we then abstain from adopting a similar course? Have we no energy or zeal among us? Surely if we seek not to promote the interests, to support the dignity, and secure the privileges of the profession to which we belong, no one else will trouble their heads about our concerns, nor is it to be expected they should. One of the professed objects for which the *British Medical Association* was established, was "to suppress illegal practitioners, and thereby protect the real interests of the public;" and that it should, "by every legal means, or by application to Parliament, if considered necessary, endeavour to remove every professional grievance, evil, and hardship." Now druggists being allowed to prescribe for disease, whenever they have an opportunity, which opportunities are, from ignorance, and an erroneous idea of economy, abundant beyond measure, is an evil and hardship of a most glaring description, and one that should be exposed and held up to public condemnation in every possible manner.

Dr. Webster, the able chairman of the Association just alluded to, stated, in his address to the meeting of medical practitioners, held in November, 1836, after speaking of the gross impositions of St. John Long, Morison, Homœopathists, &c., that "one of the *greatest grievances* from which our body suffers, is the existence of what may be called 'prescribing,' or 'dispensing,' chemists; men who, without a particle of medical or scientific knowledge, are becoming the general practitioners, in all minor ailments, and the beginnings of disease." "I have heard it said (continues Dr. W.), even by men in high places, 'Let the chemists and the quacks get as many patients as they can,' but I differ entirely from this doctrine of free trade. Is it not the duty of a Government to provide genuine coin for circulation, to prevent the circulation of base metal, and to inflict punishment upon those who clip or debase the true coin? I know of no other country where our system of unlicensed practice exists; and I am satisfied, if we act with unanimity, it cannot continue in this country. Let the duties of chemists be properly regulated, and not allowed to interfere with those of the medical practitioner."

But, Mr. Editor, where are the symptoms of our unanimity and activity in requiring the removal of the evil; it is more than a twelvemonth since the *British Medical Association* was formed, and yet we see no signs of better things, no exposure of the evils of such proceedings, no putting down of such

gross abuses, no petitions to the Legislature for medical reform, no energy on the part of the profession in calling the attention of Government to the paramount importance, and absolute necessity, if the well-being of society is to be promoted, of repealing the present obnoxious medical laws, of instituting a new and more enlightened code, of adopting measures to protect the health of the community, which alone can be done by judicious sanitory regulations, and the establishment of a good and wise system of medical police. Why should a mighty kingdom, like Great Britain, be so far behind the continental states in this respect? In France the good effects of a comprehensive system of medical laws, and of a well-regulated medical police, have long been manifest in the management of her charitable institutions, in adopting measures for the protection of the public health; how (as you have recently inculcated in your Journal) infinitely superior is the plan pursued by that enlightened country to the absurd regulations of our well-endowed, but mismanaged, hospitals and public charities. Indeed, we may copy much that is good from our neighbours, with respect to the improvement and promotion of medical science. No ignorant, uneducated drug vendors are there allowed to prescribe for disease, nor can an individual sell any medicine, drug, or chemical agent, without having passed an examination as to his knowledge of the nature and properties of the different substances he may have to deal in. And is not this a prudent and wise regulation?

It seems to me to be a most dangerous thing, that an ignorant person, who chooses to purchase a licence to sell drugs, should be allowed to deal in such substances as calomel, arsenic, opium, &c. &c., without the public having received a guarantee that he knows the difference between oxalic acid and sulphate of magnesia, or tincture of opium and tincture of rhubarb. Would it not be better to have two or three classes of druggists, at least, the demarcations of each division being well defined. The *first class* might include the manufacturing chemist and wholesale dealer; *the second*, the dispensing chemist and retail dealer; and *the third class*, the mere dealer in the less important substances, being altogether a subordinate division. Of course, no druggist should be allowed to prescribe for any complaint, or bodily affection whatever, such a proceeding being as foreign to their business as that of the law-stationer is to that of the lawyer.

Quackery will doubtless exist, to a greater or less extent, as long as people are foolish enough to place confidence in the advice of uneducated, ignorant individuals; *unless* the law is rendered such (which decidedly it ought to be) as to *prevent the possibility* of the public health being impaired by quacks and druggists. I had set about collecting a number of cases illustrative of the danger and evil consequences of druggists prescribing and quacking, with a view of laying the results of my inquiry before the public, in order to prove to what an extent the evil prevails, and how constantly the most injurious results follow from such practices being allowed to exist; but I find the undertaking will prove more laborious than I had anticipated, I shall be obliged, for the present, to give up all thoughts of carrying my design into execution; and I trust that such steps are on the point of being taken as will, in a great measure, render useless such an inquiry; for I have just heard that the medical practitioners in Leeds, are about to petition Parliament on this and other subjects connected with the practice of medicine. The repeal of the Apothecaries' Act will, doubtless, be prayed for, as it is perfectly inadequate to uphold the rights, or advance the interests, of an enlightened profession; and a summary mode of punishment for all quacks, and quacking chemists, will, I am given to understand, be demanded. It behoves the medical men of every town and district in the kingdom to follow the good example of the Leeds practitioners; Halifax will not, I imagine, be far behind; for the shameful extent to which druggists here take upon themselves to prescribe for disease, and interfere with the rights of medical men, amply merits exposure and punishment.

In children's complaints, in diseases of women, in venereal affections, and, indeed, in every form of disease, they will venture to prescribe, when they have the chance, taking care to recommend the poor, suffering, mistreated patient, to apply to "a regular doctor" as soon as alarming symptoms show themselves; thus allowing the seeds of disease to become thoroughly planted in the constitution, when judicious treatment, at the onset, might have prevented it. A great number of practitioners to whom I have applied on the subject, have furnished me with examples of a most fearful character, and I have little doubt but that scarcely a week passes in which, in every town in this district, some case occurs where the most injurious, if not fatal, consequences follow from druggists (let alone quacks generally) interfering with disease. One medical gentleman told me that he believed he saw, on the average, no less than half a dozen fatal cases in a year. Is such a state of things to be longer tacitly submitted to? Surely not, or an everlasting stigma will rest on a great body of the profession, for their apathy and indifference to the cause of humanity. I would fain hope inactivity on our parts will be no longer witnessed, and that you, and the other friends of medical reform, now holding seats in Parliament, will not relax your ex-

ertions on our behalf, but will continue to make our grievances known to the Government of the country, and in such a manner as cannot fail to attract attention.

In conclusion, I trust you will, through the medium of your Journal, notwithstanding the more urgent and important questions that must now, unfortunately, occupy the attention of the public mind, for some time to come, continue to rouse the profession to energy and action in the furtherance of medical reform; that you will call for individual and collective co-operation in annihilating quackery, and in exposing the practices of ignorant pretenders, and that you will, in the appropriate language of the day, cry loud and long, "Petition, petition, petition." I remain, sir, your most obedient servant,

J. I. Ikin, Surgeon.

Halifax, December 23, 1837.

ILL TREATMENT OF NAVY SURGEONS.

To the Editor of The Lancet.

Sir:—I have not lately had the advantage of regularly receiving your valuable Journal, but chanced to notice at page 592, of No. 17, a letter upon the rights of Navy surgeons, wherein it is to be regretted that the writer (himself a Navy surgeon) had not been more explicit, and after the example of a venerable sovereign, solved some of his own questions.

Sir, it has been long notorious that in personal pay, emoluments, quarters, accommodation and indulgence—in barrack and in camp, the Army medical officers enjoy advantages *so far above* their brethren of the Navy, as to give the former not only a *feeling*, but a *bearing* of superiority *over* the latter.

In addition to his ample stock of the most approved medicines, an Army surgeon, whether at home or abroad, has always at his command abundance of nutriments, condiments, and stimulants, to which may be added surgical instruments, gratis.

If for a fever patient or convalescent a Navy surgeon order wine, porter, or brandy, he must pay for it out of his own pocket; it is true that in many ships it is sometimes made "a mess concern," but that has nothing to do with the principle.

The sufferings and services of the majority of naval surgeons, have ever been better known than valued: three and a half years upon the coast of Africa, or in the West Indies, are equivalent to an age in many of our military stations; Gibraltar as it is now, Malta, Corfu, Zante, and Cephalonia, are places of health and pleasure.

"A Naval Surgeon" asks "has the standard of qualification in the Navy been lower than in the Army?" In the years 1811, 1812, and in 1813, many young men, on being rejected for the Navy, were immediately admitted as assistant-surgeons into the Army; for the truth of this statement I can confidently appeal to the survivors of the pupils of those years, with the indefatigable Brookes, and Dr. Pearson, Mr. Carpue, and Dr. Tuthill.

Having shown that the materials composing the Army Medical Department, were *not better* than those of Navy, whence, then, comes the neglect and degradation of the latter? *From the inefficiency of its rulers.*

Ever since the peace in 1814, one object alone pressed upon the feelings, and engrossed the minds of the Medical Commissioners, namely, *to hold office.* How often to their importunate countrymen, the Scotch surgeons, did the Commissioners complain that they could "du no gude—they could hardly haud their office."

Have not all our institutions been respectable, or otherwise, in proportion to the ability and talents of those in authority?

Lord Melville had at his command gentlemen of erudition, general science, and great professional abilities; but then they might presume to *judge* for themselves, and for *those under* them,—nay, have the audacity to "staun straicht in his loardship's preesence." That the aid of such counsellors was declined *all* have seen, and *some of us felt!*

We are told by Swift that "*blunt knives* cut paper *best*;" and Goldsmith protests against "*razors*" for "chipping-blocks." The Physician-General of the Navy is a good business man; but your correspondent must be either a "Montrose eulogist," a red-hot esteem-tax-man, or a wag who deals in "praise undeserved," &c. He assures us that "the Physician-General has the welfare of the corps over which he so ably presides, much at heart, and its members are assured (by whom?) that he will do everything that he can for their advantage." Will your correspondent point out *what* "advantage" we were to derive from the *loss* of *one-half* of our hard-earned half-pay, so kindly proposed to be taken from us? Had Sir James Graham, and his brother, or rather half-brother, Knight, been permitted to act together, a little longer, their liberal designs would, nay must, have been carried into execution. I am, Sir, your obedient humble servant,

A Navy Surgeon.

Dec. 20, 1837.

DEPLETION IN CASES OF NERVOUS EXHAUSTION.

To the Editor of THE LANCET.

SIR:—I had the pleasure of perusing a most excellent paper in last week's LANCET, by Mr. Henry Rees, on the abuse of mercury and bloodletting in the treatment of nervous exhaustion.

With all that he has said on the first subject every honest and experienced member of the profession must coincide; with regard to the second, it is a long time since I came to the conclusion that bloodletting might be beneficially dispensed with in a vast number of cases in which it is at present a primary part of the treatment. Certain am I that the profession, by the tenacity with which they still adhere to depletion, mercurials, and starvation, have given the quacks and nostrum-mongers an advantage of position which a more judicious practice and policy on their part would have effectually prevented; indeed, my own experience leads me to believe that the lancet and mercury, from their abuse, have for ages been a bane rather than a blessing to the world.

Mr. Rees terminates his letter with the following paragraph:—"Much more might be usefully written, much more *will* be hereafter written, by abler men, on the conditions of the body, as influencing disease, on the nature of morbid action, and on the elements of disease; *primary causes will be as eagerly investigated* as ultimate effects."

The insertion of the above remarks in an early number of your justly influential Journal will oblige, Sir, yours obediently,

CONGREVE SELWYN, M.D.
Consulting Physician to the Ledbury Dispensary.

Jan. 1, 1838.

*** We have omitted some remarks of Mr. Selwyn on "the fallacy of the art of physic."—ED. L.

THE REVEREND SYDNEY SMITH
ON THE USE OF
ACONITINE IN TIC DOULOUREUX.

To the Editor of THE LANCET.

SIR:—As the external application of aconitine in tic douloureux has, I believe, been but little tried hitherto in England, I think it may be some use to state a case which has happened under my own eyes.

Mrs. Sibley, of East Combe, had been afflicted with this complaint for seven years, living in a state of constant agony, and from intensity of pain often deprived of reason. I left her in this state about four months since, and upon my return found her quite well, and that she had passed the last eight weeks totally free from pain. She had rubbed upon her face, the seat of the disorder, not more than about two drachms of an ointment composed of a grain of aconitine to a drachm of lard. She may relapse, but such an holiday in such a complaint is not to be forgotten. Yours truly,

SYDNEY SMITH,
Rector of Combe Florey, Taunton.

Dec. 30, 1837.

UNIVERSITY COLLEGE HOSPITAL.

CASE OF ABSCESS OF THE PELVIS CONNECTED WITH AN OVARIAN CYST.—OPERATION.—DEATH.—POST-MORTEM EXAMINATION.

M—— P——, aged 48, was admitted Nov. 28, under the care of Mr. Liston. She is a servant, of spare habit of body, and states that about fifteen or sixteen years ago, as she was showing her fellow-servant how to place the roller in a mangle, she got between it and the wall; the mangle was turned whilst she was in this position, and she was jammed between it and the wall. She was severely contused about the lower part of the abdomen and the pelvis. Since then a tumour has been gradually forming in the hypogastric region; and during the last two years she has had much pain of a lancinating and throbbing kind in this part. She has also experienced great pain in the kidneys, with much difficulty in voiding her urine, which at times was totally retained for several days together; and she has been in the habit of having it drawn off by the catheter; for the last three months she has been a patient in one of the metropolitan hospitals.

Present State.—There is a tumour in the hypogastric region, inclining chiefly to the left side. A prominent tumour is also felt in the upper part of the vagina. There is a degree of pain experienced on pressing the lower part of the abdomen.

Some days after her admission Mr. Liston examined her per vaginam, and having satisfied himself that an impulse was communicated to the fingers placed on the bulging in the vagina, by pressing on the abdominal tumour he introduced a long trocar and canula into it, where it presented in the upper wall of the passage. This proceeding was followed by the discharge of about a pint and a half of rather dark-coloured pus. A good deal of the discharge came away during the following night, but afterwards it became scanty. A few days after the operation she complained of weakness, distaste for any kind of food, felt unwell generally, and could not sleep at night. At this time she gave but a very unsatisfactory account of her pains; it was, however, evi-

dent that she was weaker; her tongue became slightly brown, and she was ordered some *hydrarg. c. creta*; she continued in this state for some days, and suffered from frequent sickness, to relieve which some effervescing medicine was ordered. On the 18th of December she complained of considerable tenderness over the abdomen, and especially in the left iliac region. Fomentations were ordered to the part, and she took some brandy and water.

Dec. 22. Continues in the same state; considerable heat and tenderness of the abdomen; tongue brown, very dry; has no sleep.

25. Since the last report she has been very drowsy and sleepy during the day, but watchful at night. Appears to be sinking; countenance indicating anxiety and weakness; very thirsty; her tongue is brown, but moister than it has been. She died on the 27th.

Autopsy twenty-six hours after Death.

Not much emaciation; the abdomen is tumid, and there is some purulent discharge in the vagina. The abdominal cavity contained a considerable quantity of a citron-coloured fluid; it was limpid, but contained several portions of lymph. Several depositions of lymph were also seen on the small intestines, gluing them at different points to the walls of the abdomen. The superficial portions of the intestines were considerably injected. The ramiform and capilliform injection appeared only on the superficial portion; those parts in contact with contiguous folds of intestine presented the natural colour, illustrating the tendency of the inflammation to extend more in contiguous surfaces than in continuous. The coats of the *intestines* were thickened from the accumulation of serosity in their tissues. In the left iliac region there was a collection of very thick pus in a cavity bounded by the intestines, glued together by lymph, in front and above, behind by the sigmoid portion of the colon, and below by the walls of a large cyst, extending up from the pubis. This collection of pus was very feebly bounded, as it was soon observed to flow out of its cavity, when the walls of the abdomen, in opposition with it, were separated. This collection had no connection with the pelvic cyst. This part having been cleaned, the subjacent large cyst was separated from the surrounding adhesions, and appeared to fill the brim of the pelvis and its cavity; the bladder was observed in front of the tumour; the rectum and sigmoid flexure were considerably pushed out of their natural course. On opening the tumour from above about two or three pints of pus were seen and removed. This pus was of a very oily character, and two large portions of a fatty orange-coloured substance were found in it, as was also a loose ovoid tumour, composed of brownish hair, which was mixed up with, and formed into a ball by, a hard, greasy, white substance. It was about the size of a goose's egg, felt rather heavy, but yielded under pressure. It was of the consistence of hard fat. This tumour and the portions of fat were quite loose in the cavity of the cyst, the walls of which were covered at different points with a deposit. On putting the hand into the cyst the uterus could be felt behind it. The cyst was dissected, but neither of the ovaries were found; the right fallopian tube and broad ligament were detected, and a small portion of the left traced from the fundus of the uterus. The uterus was elongated, and considerably atrophied. The cyst, bladder, uterus, rectum, and vagina were removed out of the pelvis. The vagina was laid open, and the aperture through which the trocar had passed was seen. The matter seemed to have burrowed somewhat between the cyst and walls of the vagina; the opening through the walls of the vagina was small and round; that in the cyst large, ragged, and apparently ulcerated.

ST. GEORGE'S HOSPITAL.

CLINICAL REMARKS BY DR. SEYMOUR ON CASES IN THE HOSPITAL.

Dysentery.—There was a man named Foy, admitted into the hospital, labouring under dysentery; he had been subject to disease of the bowels for some time, but a more severe attack than usual having supervened he came into the hospital. He was immediately put upon *calomel* and *opium*, which is now considered to be the very best plan of treatment. The symptoms of dysentery, which is nothing more than an inflammation and ulceration of the mucous membrane of the great intestine, may be resolved into tenesmus, which you know is a constant desire to go to stool, but passing no fæcal matter, with a frequent occasional discharge of fæces tinged with blood. The above plan was pursued for some days, at the end of which time he passed healthy fæces, without any blood. You may take it as a sure and safe rule in this disease, that as long as there is tenesmus and pain in the abdomen, so long ought you to continue purging your patient; this rule was followed in this case, and he was allowed meat and wine to support his strength, when he was suddenly attacked with an effusion of fluid into the cellular membrane of the body and pericardium; there was a dry tongue, hot skin, and a quick pulse. When he sat up in bed he was obliged to lean forward to relieve the impending difficulty of respiration; he also passed urine mixed with blood, which was a diagnostic mark of

disease of the kidney. I was apprehensive of his dying, from his being already previously weakened by the dysenteric attack of the bowels. He took *digitalis*, in order to promote a discharge of urine, and this relieved the anasarca greatly; and there was also less fluid in the pericardium, but the difficulty of breathing increased, the lips became blue from congestion of blood within the chest, the pulse grew rapid and fluttering, and he died.

Now all these symptoms might have arisen from disease of the heart, but then they would have come on more gradually; but, as you see, they were very sudden in their accession.

Causes of Dropsy.—Disease of the heart and kidneys is the most frequent cause of dropsy; the former is, however, most commonly met with, while in some cases you will find them both present. On examining the body of this patient after death, the heart was found hypertrophied, and the pericardium in a distended state, and containing a large amount of fluid. I have told you that there was some blood in the urine, and we were prepared, therefore, to find the kidneys diseased. They were also hypertrophied, and presented externally that marbled appearance which Dr. Bright has denominated the granulated kidney. The sigmoid flexure of the colon was thickened, and cartilaginous, and its internal mucous membrane was studded with numerous ulcerated patches, caused by acute inflammation.

Gastro-enteric Fever.—Ulceration of the large intestine leads me to speak to you of some of the affections of the small intestine. There is a case of continued fever now in the house, in which there is an affection of the head; an anti-inflammatory course of treatment was adopted, and he got better, when the bowels began to operate very freely, and there was some degree of hæmorrhage from them, which may generally be looked upon as a favourable symptom. The brain became affected, and the constitutional affection might be presumed to be the cause of it. There is another case of fever, with disorder of the small intestines, which will, in some cases, give rise to the graver affection of typhus fever. This form of fever, combined with ulcerations of the small intestines, has only lately engaged the attention of physicians, who had lost sight of the pathological appearances which these cases presented after death. Morgagni first directed the attention of pathologists more particularly to this fact, and in modern times Broussais has revived it, and proved that a whole class of fevers is sometimes met with, in which after death there is found ulceration of the ilio-cœcal valve. In the years 1823-24, this species of fever was epidemic in the hospital, and after death this pathological appearance of the small intestine was found. In this disease Broussais went so far as to say that irritation of the intestinal mucous membrane was the cause of half the diseases under the sun; this is false,—but it is at the same time most certainly true that it is the cause of many fevers to which the French have given the characteristic term of *gastro-enterite*, which is nothing more than a long-continued nervous, or remittent fever, accompanied by this affection of the bowels. In a case of gastro-enterite pressure over the ilio-cœcal valve causes pain; the bowels are loose, the stools thin, yellow, and ochrey-coloured, and the tongue is hot and dry. The best treatment in these cases is to give mercury with chalk, and Dover's powder and castor-oil, or rhubarb, and magnesia, and some aromatic confection in peppermint-water, the object being to absorb the discharge from the ulcerated surface of the intestines, and then eject it. In cases of this kind occurring in females there is a greater degree of disturbance of the nervous system, and you must give musk and diffusible stimuli, supporting the patient's strength at the same time with wine; but you must also stimulate the intestines, and get a more healthy secretion of matter; the heat of the skin may be diminished by tepid fomentations.

UTERINE DISCHARGE WITH TUMOUR?—ANCHYLOSED KNEES.

Sarah Nash, ætat. 30, admitted under Dr. Seymour, June 22. She complains of a constant discharge from the vagina, of a pale yellow colour, and states that she has had it for three years, without check or intermission. She has had four or five children. At the usual menstrual periods the discharge is of a higher colour and thicker consistence, and with a slight odour. The pulse is quick; the bowels confined; the skin blanched; the tongue natural; the knees are stiff, but without pain, except on motion. She was ordered *castor-oil in peppermint-water*, to unload the bowels, and Dr. Robert Lee was ordered to report on the state of the uterus.

28. The vaginal discharge remains as before, and she was ordered to use the following injection every night and morning:—

Decoction of oak bark, one pint;
Rectified spirit, one ounce;
Extract of hemlock, one drachm.

July 5 With reference to the stiffened state of the knees, it appears that about twelve months since she was attacked with severe synovial rheumatism in both knees; three months afterwards she was confined, during which period the inflammation declined, but the patella and joints have ever since remained immoveable. Soon after this the discharge came on, which she has had ever since. On making an examination per vaginam, Dr. Lee could discover no

trace of organic disease, but the os uteri was very tender to the touch. She has taken colchicum in abundance, with reference to which Dr. Seymour observed, that as gouty discharge from the urethra might occur in the male, he did not suppose it impossible that a vaginal discharge from the same cause might occur in the female. In accordance with this idea she was ordered—

Acetous extract of colchicum, three grains; *Dover's powder*, five grains. To be taken every night and morning.

The *injection* to be continued.

Sir Benjamin Brodie examined her knees, and reported that both the knee and ankle-joints were in a perfect state of anchylosis, to mitigate which they were ordered to be steamed in a vapour bath every other day.

17. The vaginal discharge is better, and at her urgent request she was made an out-patient, with a recommendation from her physician to go to the *Bath Hospital*, for greater benefit than she had received at *St. George's*.

OSTEO-SARCOMA OF THE UPPER JAW.

EXTIRPATION OF THE DISEASED MASS.—CURE.

Leonhard Carl, 24 years of age, habitually enjoying good health, and of pretty good constitution, when 10 years of age, fell with and struck the left side of the face against a stone. The patient remained without consciousness for some time, but soon recovered; the pain produced by the accident was slight, and no serious injury seemed to have been produced by the fall. Some time afterwards, however, the left cheek was observed to be a little enlarged, but no attention was paid to this circumstance, as the tumefaction was unaccompanied by pain or other inconvenience. From this time the tumour gradually increased, and at last acquired a very remarkable size. The left cheek is now occupied by a large, conical-shaped tumour, which has pushed the nose to one side, and forced the eye upwards and outwards. The skin which covers the tumour is marked by numerous veins, and is slightly red at the inner angle of the eye; in other places it appears unchanged. The tumour extends from the inner angle of the orbit, along the side of the nose, to the angle of the mouth, then along the alveolar processes to the last molar tooth, and then mounts from this point to the lower edge of the orbit, embracing the whole of the malar bone. The circumference of the base of the tumour is nine inches and a half. It has pushed up the floor of the orbit so as to form there a tumour as large as a nut, has nearly obliterated the nostril, and has also forced down the palatine plate into the mouth. No elasticity or softness can be discovered on the surface of the tumour. The diagnosis formed was osteo-sarcomatous tumour, probably arising from the orbital plate of the superior maxillary bone, and filling the whole of the antrum.

The operation for its removal was performed by Dr. Dietz. The first incision ran from the inner angle of the orbit over the tumour as far down as the alveolar process, about an inch and a half from the angle of the mouth. From the middle of this incision a second one, an inch and a half long, was made to fall in the middle of the space compressed between the angle of the mouth and the edge of the nostril. The flaps were now dissected back from the surface of the tumour, and the malar bone divided, through its whole length, with a fine saw; the further separation of this bone was effected by repeated but light blows of a hammer and chisel. Although the parietes of the bones which surrounded the tumour were very much thinned, the extent of the latter prevented its being completely separated with the chisel, and the operator was compelled to cut it away, from the apex towards the base, with a strong scalpel. This was effectually performed until the whole was reduced nearly to a level with the surrounding healthy bones. It now remained to remove the diseased portions of the orbital and nasal regions, and this also was effected with the chisel, during which the division of the infra-orbitar branch of the maxillary nerve produced the most severe agony. The portion of the diseased mass which extended backwards into the antrum could now be attacked, and after long-continued efforts with the scalpel, the fingers, and a hand-chisel it was at last removed. The posterior wall of the maxillary antrum seemed, at first sight, to have been perforated by the tumour; on more close examination, however, the posterior parietes of the antrum were discovered to be uninjured, and covered, in most places, with the lining mucous membrane. The hæmorrhage, which occurred during the operation, was copious, but was checked by the application of cold water. A small artery, near the alveolar process of the third molar tooth, bled more freely, and required the application of a compress moistened with a styptic fluid. After having sufficiently cleaned out the cavity of the wound the operator brought its edges together, and kept them in contact with several points of suture.

The patient bore this tedious operation with great fortitude. His pulse was small, but not much accelerated, and he walked, without support, from the operating theatre to his chamber. Cold lotions were applied over the whole side of the face, and he was ordered some Glauber salts with nitre. Half an hour after the termination of the operation, the cavity of the wound became tumefied, and a quantity of blood escaped from

the nose and mouth. The lower angle of the wound was immediately opened, the coagulated blood removed, and a fresh compress applied over the bleeding alveolar artery. In the evening the hæmorrhage had not reappeared, and the patient appeared quiet. On the day following the operation hæmorrhage again set in with sufficient violence to produce fainting; it was, however, restrained, and did not recur again. From this time the condition of the patient continued to improve, but it is unnecessary for us to follow the author through his minute account of the daily symptoms. The cavity of the wound became moderately filled with granulations, but about one inch and a half of the upper part of the wound could not be made to unite. The author accordingly refreshed the edges, and brought them again together with the Carlsbad needles. This had the desired effect, for the whole wound was healed in ten days afterwards.—*Dieffenbach's Zeitschrift*, No. 9, 1837.

ANGULAR ANCHYLOSIS OF THE KNEE-JOINT.

NEW METHOD OF TREATMENT.

M. Duval, whose skill in the treatment of deformities is well known, has lately obtained remarkable success in three cases of angular anchylosis, by the simple operation of dividing the tendons of the biceps, semi-tendinosus, and semi-membranosus muscles in the region of the ham. He was led to this happy idea by analogical reasoning on what occurs after division of the tendo Achillis, in cases of club-foot.

The subject of the first case operated on by M. Duval was a child of six years old, in whom, for the last three years and a half, the leg had been drawn up so forcibly that the heel actually was in contact with the buttock. The foot, on the same side, was also deformed, and presented an example of the pes equinus. The articulation of the knee admitted of some obscure movements, and the condyles of the femur seemed to be considerably tumefied; the tendons of the biceps, semi-membranosus, and semi-tendinosus muscles, appeared as strong prominent chords running along the side of the joint.

The deformity had been the consequence of a long-continued paralytic affection of the lower extremities. M. Duval commenced the treatment by dividing the tendo Achillis, and succeeding in restoring the natural position of the foot in 15 days. He then proceeded to divide the three tendinous bands above-mentioned, by introducing a small bistoury beneath the skin, and cutting outwards; this immediately restored a great portion of movement to the joint. Some simple machinery was then applied to the back of the leg, so as to keep up constant extension, and after a lapse of twenty days the limb was restored to its natural position; the patient could now stand upright on both legs, and even walk a little without crutches. In two months the cure was nearly completed, the boy's leg was perfectly straight, and although emaciated and weak, was daily gaining in bulk and strength.

The subject of the second case was a child eleven years of age. The angular anchylosis of the knee had existed for six years, having been originally produced by a rheumatic affection of the joint. The articulation was moveable, but covered with cicatrices. The operation, which in every respect was similar to the former one, was attended with complete success. The third case, which presents nothing remarkable, also terminated successfully.

These facts are highly interesting, and merit the attention of the surgeon.—*French Lancet*, No. 140.

ANEURYSM OF THE ABDOMINAL AORTA (?) TREATED ON VALSALVA'S METHOD.

A Tuscan woman, 23 years of age, commonly enjoying good health, was seized, while lifting a weight, with acute pain in the abdomen, followed by vomiting, and a sense of strong pulsation in the painful region. She took no notice of these symptoms, until, after a lapse of some time, they became much aggravated; her feet were now swollen; on pressing strongly, a deep-seated, round, and pulsating tumour was discovered not far from the diaphragm; pressure below the umbilicus increased the pulsations, as also did constriction of the large vessels of the extremities. On auscultation, a whirring sound was heard in the site of the tumour. According to Valsalva's method, she was put on the strictest diet; was bled every second day for sixteen days, and took from 12 to 60 grains of the powder of digitalis. The activity of the circulation was much reduced by these means, but the pulsation of the tumour continued as before. The digitalis was now suspended for a few days, but again resumed. The tumour soon began to diminish in size, and its pulsations became weaker. After having continued the treatment for a few months the patient was able to go about and return to her usual employment. She soon, however, committed several errors in diet, made use of violent exercise, &c., and the disease recurred. The above treatment was again employed, and, eventually, effected a complete cure.(?) —*Annal. Univ. de Med.*, Oct. 1836.

EXTRACTION OF FOREIGN BODIES FROM THE ŒSOPHAGUS, URETHRA, &c.

By M. Beniqué.

The instruments hitherto employed for the extraction of foreign bodies from the different passages in which they may become engaged, present the disadvantage of not preventing laceration or other injury of the organ with which the foreign body is in contact. To avoid this inconvenience, M. Beniqué has imagined a very ingenious process, which, however, requires the sanction of experience to determine its actual value. If a foreign body be engaged in the œsophagus, for example, he takes an elastic bougie of small dimensions, and attaches to its extremity of a small bladder of *baudruche;* when this is empty, it is not broader than the bougie, but, when inflated, it can occupy a space of two to four lines in diameter. When the sound has passed beyond the foreign body, this little bladder is filled with water, and thus forms behind it an obstacle to its further passage downwards. The foreign body might now be extracted, but, to prevent any injury to the mucous membrane of the canal, M. Beniqué introduces a larger bladder, which, when filled, occupies a larger volume than that of the œsophagus. The foreign body is thus comprised between the two bladders, and easily follows them when the tubes to which they are attached are withdrawn.

TREATMENT OF VARICOSE VEINS BY EXCISION.

Varicose tumours of the veins are produced by a retrograde motion of the blood in those vessels. Signor Rima considers this to be proved by the following facts:—First,—If a portion of a varicose vein be divided, the blood issues in a jet, as from an artery. Secondly,—If a ligature be applied below the knee, or on a varicose vein, the veins situate above the ligature swell and dilate, an effect which can be referred only in part to simple gravitation of the blood. S. Rima prefers excision to every other method of treatment. He carefully exposes the vein about an inch above the highest varicose point, and then excises from ten to twelve lines in length of the vessel. The bleeding is easily arrested by pressure. He has treated thirty-four cases of varix, or simple varicose ulcers, after this method; of these ten (four complicated with ulcer) were cured; thirteen much relieved; six slightly improved; two not relieved; and two died. Paletta and Ghidella have employed the same mode of treatment with success.—*Zeit. für die Ges. Med.*, Vol. v., No. 2.

VALUE OF VACCINATION AS A PREVENTIVE OF SMALL-POX.

After giving a table of the total deaths under ten years of age, and the deaths under ten from small-pox, in Glasgow, for thirty years, and divided into three equal periods, Dr. Cowan observes:—

The ravages of small-pox were never before more vividly illustrated than in the foregoing table.

In the first period of ten years, the total deaths under ten years of age amounted to 9919, and the deaths from small-pox to 3466, being 34.94 per cent., and rather more than one-third of the whole deaths under ten.

In the second period, the total deaths under ten are 9080, and the deaths from small-pox 2894, or 31.87 per cent.; and in the last period, the total deaths under ten are 20,913, and the deaths from small-pox 1013, or only 9.28 per cent.

The saving of human life in infancy by the introduction of vaccination is thus most satisfactorily established, as the table shows an improvement to the extent of 25 per cent., and if to this be added the lives saved above ten years of age, which we have no means of exhibiting from the Glasgow Mortality Bills, we will be able to judge of the benefits conferred on society by Jenner.

The immunity of the Irish from small-pox is a remarkable fact. Dr. Cowan attributes this, and we think, justly, to the general practice of vaccination among the lower classes by the surgeons of the county infirmaries and dispensaries of Ireland. Out of ninety-five patients treated by Dr. Cowan in 1836, four only were natives of Ireland; while ninety-one were Scotch, of whom seventy were Highlanders, and twenty-one natives of the Lowlands. A very large proportion of the Highlanders were from the remote islands, and all had recently arrived in Glasgow. Fifty-five of the patients had apparently been vaccinated; but forty never had the operation performed. No death occurred in any individual who presented the appearance of having been properly vaccinated.—*Dublin Journal of Medical Science, &c.*, January, 1838.

TO CORRESPONDENTS.

L. M. The reply is in the affirmative to both questions.

The letters of *Dr. Sorley* have been received, but we are unwilling, by giving insertion to them, to revive a personal discussion.

The communications on the Continental Military Hospitals, and on the Average of Life in the Bengal service, shall appear in our next.